



Australian Government

UEGNSG617 Monitor and control the transfer of bulk LPG

Release: 1

UEGNSG617 Monitor and control the transfer of bulk LPG

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 safely transfer liquified petroleum gas (LPG) in to or out of bulk storage at an LPG terminal or refinery by pipelines and hoses. It includes ship to tank, tank to tank, tank to tanker and tank to distribution network.

It also includes following workplace procedures to correctly and safely carry out the work using appropriate materials, tools and equipment, applying relevant emergency response procedures and completing relevant documentation.

No licensing, legislative or certification requirements apply to this unit at the time of publication.

Pre-requisite Unit

Not applicable.

Competency Field

Gaseous Fuel Vessels

Unit Sector

Gas Industry

Elements and Performance Criteria

ELEMENTS

Elements describe the essential outcomes.

1 Plan and prepare for the bulk transfer of LPG

PERFORMANCE CRITERIA

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

1.1 Material lists are obtained, analysed and confirmed by site inspection, as required, and availability of equipment is determined in accordance with work schedule/s and workplace procedures and

- 1.2 Job requirements and workplace procedures for the transfer are obtained for all work sites and communicated to relevant person/s in accordance with workplace procedures
 - 1.3 Work health and safety (WHS)/occupational health and safety (OHS), environmental and sustainable energy policies and procedures for monitoring and controlling the transfer of LPG are obtained and communicated to relevant person/s
 - 1.4 Work is prioritised and sequenced for completion within acceptable timeframes following consultation with relevant person/s in accordance with workplace procedures
 - 1.5 Hazards and WHS/OHS risks are identified and prioritised and control measures implemented and monitored
 - 1.6 Equipment is checked for correct operation and safety and relevant work permit/s are obtained to access, isolate/de-energise systems and perform the work in accordance with regulatory requirements and workplace procedures
 - 1.7 Pipelines and hoses are connected and personal protective equipment (PPE) required for the transfer is identified, scheduled, obtained and checked for correct operation and safety in accordance with workplace procedures
 - 1.8 Communication issues with relevant stakeholders are resolved and work coordinated in accordance with work schedule and workplace procedures
 - 1.9 Site is prepared and valves operated to minimise risk and damage to property, commerce and individuals in accordance with the work schedule and workplace procedures
 - 1.10 Person/s participating in the work, including plant operators and contractors, are briefed and responsibilities coordinated in accordance with workplace procedures
- 2 **Control the transfer of LPG**
 - 2.1 WHS/OHS risk control measures and policies and procedures are followed in accordance with workplace

procedures

- 2.2 Hazardous activities are performed safely and currency maintained, as required, in accordance with regulatory requirements and workplace procedures
- 2.3 LPG transfer is monitored and controlled to ensure completion in agreed timeframes with a minimum of waste and damage to the surrounding environment or services and using sustainable energy principles
- 2.4 Monitoring the transfer of LPG is carried out in accordance with the work schedule and workplace procedures
- 2.5 Transfer equipment is operated safely and identified hazards, WHS/OHS risks and control measures are monitored and preventative action taken in accordance with requirements and workplace procedures
- 2.6 Pressure limits and liquid levels are monitored and any unplanned events encountered in the LPG transfer are actioned in accordance with workplace procedures
- 2.7 Problem-solving techniques and emergency response procedures are applied to unplanned events or incidents in accordance with workplace procedures
- 2.8 Quality and safety checks of the bulk LPG transfer are undertaken in accordance with workplace procedures

3 Complete work and relevant documentation

- 3.1 LPG transfer is checked against work schedule for conformance with requirements and anomalies reported in accordance with workplace procedures
- 3.2 Accidents and injuries are reported in accordance with requirements and workplace procedures
- 3.3 Work site is cleaned up and made safe in accordance with job instructions and workplace procedures
- 3.4 Tools, equipment and any surplus resources and materials are cleaned, checked and returned to storage in accordance with workplace procedures
- 3.5 Relevant work permit/s are signed off and equipment is returned to service in accordance with requirements and workplace procedures

- 3.6** Emergency shutdown procedures are applied in the event of serious equipment failure or operational parameters being exceeded in accordance with workplace procedures
- 3.7** Work completion records, reports and documentation are completed, processed and appropriate person/s notified in accordance with 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.

- transfer applications must include at least two (2) of the following:
- ship to storage terminal
 - tank to tank
 - tanker to tanker
- equipment must include at least four (4) of the following:
- pumps and compressors
 - pipes
 - hoses
 - valves
 - gauges
 - tank connections and fittings
 - articulated arms
 - earthing clamps and connections

Unit Mapping Information

This unit replaces and is equivalent to UEGNSG617A Monitor and control the transfer of bulk LPG.

Links

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

Assessment Requirements for UEGNSG617 Monitor and control the transfer of bulk LPG

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, performance criteria and range of conditions on at least two separate occasions and include:

- applying relevant work health and safety (WHS)/occupational health and safety (OHS) requirements, including:
 - working safely with hazardous materials and equipment
 - hazard identification and reporting
 - implementing risk control measures
 - selecting and using correct personal protective equipment (PPE)
- applying relevant industry standards, guidelines, codes of practice and regulations
- applying sustainable energy and environmental principles and practices
- communicating with relevant stakeholders
- completing work and relevant documentation
- conducting quality and safety checks
- conducting site inspections
- dealing with unplanned events/situations in accordance with workplace procedures in a manner that minimises risk to personnel and equipment
- following workplace procedures
- identifying and reporting anomalies
- isolating and de-energising systems
- maintaining a clean work site
- monitoring and controlling the liquified petroleum gas (LPG) transfer
- obtaining and complying with relevant work permits
- planning and preparing for the bulk transfer of LPG
- using relevant equipment.

Knowledge Evidence

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

- compliance requirements
- fault-finding and troubleshooting techniques
- relevant stakeholders, including authorised persons, authorities, clients, tenants and land owners
- hazardous activities, including lifting, climbing, working in confined spaces and aloft, and use of power tools
- dangerous goods codes
- manufacturer specifications
- relevant legislation, regulations, codes, standards and policies
- relevant WHS/OHS legislated requirements, including:
 - applicable emergency equipment and procedures
 - hazards, risk assessment and control measures
 - environmental and sustainable energy principles and practices
 - hazard warnings and safety signs
 - manual handling
 - job safety assessments
 - hazardous materials
 - use of spill kits and PPE
- LPG bulk storage vessels, including:
 - properties of LPG
 - types, construction, size, valves, labelling, and material safety data sheets/safety data sheets (MSDS/SDS)
 - inspection procedures
- LPG bulk transfer, including:
 - requirements, applications, methods and procedures
 - equipment/tools
 - types
 - compressors, pumps, pipes and hoses
 - gas alarm and communication equipment
 - ignition prevention/control
 - leak testing requirements
- oral and written communication techniques
- problem-solving techniques
- quality and safety checks
- relevant safe work method statements (SWMS)/job safety assessments or risk mitigation processes
- relevant work permits
- relevant workplace documentation, forms and reports
- relevant workplace policies and procedures
- site inspections
- workplace quality requirements and specifications.

Assessment Conditions

As a minimum, assessors must satisfy applicable regulatory requirements, which include requirements in the Standards for Registered Training Organisations current at the time of assessment.

As a minimum, assessment must satisfy applicable regulatory requirements, which include requirements in 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 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>