



Australian Government

UEGNSG611 Control LPG storage/processing operations

Release: 1

UEGNSG611 Control LPG storage/processing operations

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 control liquefied petroleum gas (LPG) storage/processing operations. It includes planning, monitoring and controlling LPG storage operations and shutting down operations in the event of an emergency.

It also includes using relevant resources and equipment, identifying faults and completing relevant reports and 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 LPG storage operations

PERFORMANCE CRITERIA

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

- 1.1** 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
- 1.2** Relevant person/s are consulted and work is prioritised and sequenced for completion within acceptable

timeframes and to industry standards in accordance with workplace procedures

- 1.3** Hazards and work health and safety (WHS)/occupational health and safety (OHS) risks are identified and prioritised and risk control measures implemented and monitored
- 1.4** WHS/OHS, environmental and sustainable energy policies and procedures related to the work are obtained to ensure safe systems of work are followed in accordance with workplace procedures
- 1.5** Relevant work permit/s are obtained to coordinate the work in accordance with job/regulatory requirements and workplace procedures
- 1.6** Appropriate equipment, tools and personal protective equipment (PPE) required for the job are identified, scheduled, obtained and checked for correct operation and safety in accordance with workplace procedures
- 1.7** Communication issues with relevant stakeholders are resolved and work coordinated in accordance with work schedule and workplace procedures
- 1.8** Person/s participating in the work, including plant operators and contractors, are briefed and responsibilities coordinated and authorised, as required, in accordance with workplace procedures
- 1.9** Site is prepared to minimise risk and damage to property, commerce and individuals in accordance with the work schedule and workplace procedures

2 Control storage/processing operations

- 2.1** WHS/OHS risk control measures and policies and procedures are followed in accordance with workplace procedures
- 2.2** Systems isolation is performed in accordance with requirements and workplace procedures
- 2.3** LPG storage/processing operations are initiated ensuring completion in agreed timeframes with a minimum of waste and damage to the surrounding environment or services and using sustainable energy principles
- 2.4** Operation of storage or processing system is monitored to ensure safety and efficiency and system operations communicated to relevant person/s and other work areas

in accordance with workplace procedures

- 2.5 LPG storage processing operation controls are adjusted and monitored in accordance with work schedule, job requirements and workplace procedures
- 2.6 Alarm codes 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
- 2.7 Work schedule is monitored and remedial action taken to address any shortfalls encountered in accordance with requirements and/or workplace procedures
- 2.8 Work is coordinated to ensure completion in agreed timeframe and to industry standards with a minimum of waste in accordance with job requirements and workplace procedures
- 2.9 Fault-finding and troubleshooting techniques are applied to problems encountered when controlling LPG storage/processing operations in accordance with workplace procedures
- 2.10 Quality and safety checks of the work are conducted in accordance with job requirements, workplace procedures and community and industry standards

3 Shut down operations and complete relevant documentation

- 3.1 Work undertaken is checked against work schedule for conformance and anomalies and proposed solutions reported to relevant person/s in accordance with workplace procedures
- 3.2 Accidents and injuries are reported in accordance with requirements and workplace procedures
- 3.3 Emergency shutdown procedures are applied in the event of equipment faults/failure or operational parameters being exceeded
- 3.4 Relevant work permit/s are signed off and system returned to service and communicated to clients in accordance with requirements and workplace procedures
- 3.5 Work completion records, reports, documentation and as installed/modified drawing/s 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.

resources must include at least five (5) of the following:

- pumps and compressors
- valves
- vessels
- control and monitoring equipment
- mixing equipment
- sampling equipment
- air equipment

unexpected events must include at least three (3) of the following:

- gas leaks and fire
- equipment failure
- LPG supply levels
- electricity supply fires

monitoring of LPG storage/processing facilities must include at least four (4) of the following:

- pressure
- temperature
- levels
- corrosion
- gas leaks
- stock levels
- security

equipment faults must include at least 4 of the following:

- electrical problems
- over filled vessel
- compressor failure
- pump failure
- out-of-current inspection status
- gauge failure
- hose rupture/leaks
- instruments out of calibration
- non-flow of LPG

Unit Mapping Information

This unit replaces and is equivalent to UEGNSG611B Control LPG storage/processing operations.

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 UEGNSG611 Control LPG storage/processing operations

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 industry standards, guidelines, codes of practice and regulations
- applying relevant work health and safety (WHS)/occupational health and safety (OHS) requirements, including:
 - applying emergency response procedures
 - applying sustainable energy and environmental principles and practices
 - hazard identification and reporting
 - implementing risk control measures
 - selecting and using correct personal protective equipment (PPE)
 - selecting and using relevant equipment in an LPG environment
 - working safely with hazardous materials and equipment
- communicating with relevant person/s
- completing relevant reports and documentation
- controlling storage operations
- dealing with unplanned events
- following workplace procedures
- interpreting relevant drawings, plans and material lists
- isolating systems
- obtaining and complying with relevant work permits
- planning control of LPG storage operations
- recording relevant information
- shutting down operations
- working safely in a liquified petroleum gas (LPG) environment.

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:

- correct use of plant and equipment in an LPG environment, including:
 - transfer equipment, including compressors or pumps
 - transfer methods for pipes and hoses
 - selection, testing and set up processes for transfer equipment
 - making analytical judgements for appropriate adjustments to plant and equipment
 - test equipment and its uses
 - operation, testing and inspecting equipment that includes pressure vessels and associated fitting
 - manufacturer specifications to make adjustments to parts where appropriate
 - how to select appropriate equipment for tasks associated with LPG
 - operating gas analysis equipment
 - operating gas alarm and communication equipment
- communicating in an LPG environment
- gaseous fuel storage
- gas industry drawings, plans and material lists
- gas industry products, processes and characteristics
- identifying and reporting problems associated with transfer processes and procedures
- LPG production process, including:
 - processing, handling and storage operations for LPG
 - how to mix/blend the properties of LPG
- permit to work systems for an LPG environment
- properties of LPG
- properties of static electricity and how to manage it in an LPG environment
- recording and reporting corrective actions in an LPG environment
- recording LPG information
- relevant manufacturer specifications
- relevant safe work method statements (SWMS)/job safety assessments or risk mitigation processes
- relevant stakeholders, including: authorised persons, authorities, clients and land owners and tenants
- relevant WHS/OHS legislated requirements, including:
 - applicable emergency equipment and procedures
 - hazards, risk assessment and control measures
 - environmental and sustainable energy principles and practices
- relevant workplace documentation
- relevant workplace policies and procedures
- site inspections
- technical drawings for the LPG environment
- working safely in an LPG environment

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.

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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

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