



Australian Government

UEGNSG620A Organise the repair of faults in LPG processing or storage facilities and equipment

Release 1

UEGNSG620A Organise the repair of faults in LPG processing or storage facilities and equipment

Modification History

This unit replaces UEGNSG609B Coordinate repair of faults in gas processing/storage facilities and equipment

Unit Descriptor

Unit Descriptor 1)

1.1) Descriptor

This unit covers organising the repair of faults, which occur during the processing and/or storing of liquefied petroleum gas (LPG) in accordance with relevant legislation, codes, regulations and established procedures.

This unit encompasses identifying the types of faults; liaising with the appropriate persons to authorise and conduct repairs; and providing the relevant documentation.

Application of the Unit

Application of the Unit 2)

This competency standard shall apply to work sites where liquefied petroleum gas (LPG) is processed, stored and handled, subject to all Workplace Health and Safety (WHS)/Occupational Health and Safety (OHS) and duty of care requirements being met for the workplace.

This unit is intended as an entry level AQF 3 competency for new entrants in the gas industry. It is suitable for employment-based programs under an approved contract of training.

Licensing/Regulatory Information

License to practice 3)

During Training:

Competency development activities are subject to regulations directly related to licensing, occupational health and safety and where applicable contracts of training such as apprenticeships.

In the workplace:

The skills and knowledge described in this unit are not subject to licence regulation other than those directly related to Occupational Health and Safety, gas/electricity/water industry safety and compliance, industrial relations, environmental protection, telecommunications, anti-discrimination and training.

Commonwealth, State/Territory or Local Government legislation and regulations may exist that limits the age of operating certain equipment. Other conditions may apply to this competency under State and Territory legislative and regulatory requirements.

Pre-Requisites

Prerequisite Unit(s) 4)

Competencies 4.1)

Granting of competency in this unit shall be made only after competency in the following unit(s) has/have been confirmed:

UEGNSG141A Apply Workplace Health and Safety regulations, codes and practices in the gas industry

UEGNSG005A Prepare to work in the Australian gas

Prerequisite Unit(s) 4)

industry

UEGNSG132A Carry out basic work activities in a gas industry work environment

UEGNSG140A Apply environmental policies and procedures in the utilities industry

UEGNSG134A Establish a utilities infrastructure work site

Literacy and numeracy skills 4.2)

Participants are best equipped to achieve this unit if they have reading, writing and numeracy skills indicated by the following scales. Description of each scale is given in Volume 2, Part 3 'Literacy and Numeracy'

Reading 3 Writing 3 Numeracy 3

Employability Skills Information

Employability Skills 5)

This unit contains Employability Skills

The required outcomes described in this unit of competency contain applicable facets of Employability Skills. The Employability Skills Summary of the qualification in which this unit of competency is packaged will assist in identifying Employability Skill requirements.

Elements and Performance Criteria Pre-Content

6) Elements describe the essential outcomes of a competency standard unit *Performance Criteria describe the required performance needed to demonstrate achievement of the element.*
Assessment of performance is to be consistent with the Evidence Guide.

Elements and Performance Criteria

ELEMENT

PERFORMANCE CRITERIA

1 Plan and prepare to organise repairs in LPG processing/storage facilities and equipment

- 1.1 Appropriate persons are consulted to ensure the work is organising effectively with others involved in the worksite against work schedule(s), including drawings, plans and established procedures
- 1.2 Relevant requirements and established procedures for the work are communicated to all persons and identified for all work sites
- 1.3 WHS/OHS, environmental and sustainable energy policies and procedures, related to organising the repair of faults in gas processing/storage facilities and equipment, are obtained and confirmed for the purposes of the work performed and communicated
- 1.4 Work is prioritised and sequenced following consultation with others for completion within acceptable timeframes and in accordance with established procedures
- 1.5 Risk control measures for identified hazards are prioritised, implemented and monitored against the work schedule
- 1.6 Relevant work permits are obtained to access, isolate/de-energise systems and perform work according to requirements and established procedures

ELEMENT

PERFORMANCE CRITERIA

- | | | |
|---|------|--|
| | 1.7 | Resources including appropriately licensed persons, equipment, tools and personal protective equipment required for the job are identified, scheduled and obtained and confirmed in working order |
| | 1.8 | Relevant persons at worksite are confirmed to be current in related work procedures according to requirements |
| | 1.9 | Liaison and communication issues with authorised persons, authorities, clients and land owners are resolved and activities organised to carry out work |
| | 1.10 | Site is prepared according to the work schedule and to minimise risk and damage to property, commerce and individuals in accordance with established procedures |
| | 1.11 | Persons participating in the work, including plant operators and contractors are fully briefed and respective responsibilities confirmed where applicable in accordance with established procedures |
| 2 Organise repair of faults in LPG processing/storage facilities and equipment | 2.1 | WHS/OHS policies and procedures and safe work practices are followed to eliminate or minimise incidents and hazards |
| | 2.2 | Lifting, climbing, working in confined spaces or aloft, and use of power tools, techniques and practices are safely followed and currency according to requirements confirmed |
| | 2.3 | Required Skills and Knowledge to organise repair of faults in gas processing/storage facilities and equipment is applied to ensure completion in an agreed timeframe and to quality/ safety/ environmental standards according to requirements |
| | 2.4 | Repair work and the replacement of faulty work equipment is monitored to ensure activities are carried out to standard operating procedures, |

ELEMENT

PERFORMANCE CRITERIA

		permit to work requirements, and minimal impact occurs on existing operations and environment
	2.5	Hazard warnings and safety signs are recognised and hazards and assessed WHS/OHS risks are reported to the immediate authorised persons for directions according to established procedures
	2.6	Unplanned events in organising and repairing of faults in gas processing/storage facilities and equipment are undertaken with the scope of established procedures
	2.7	Known solutions to a variety of problems are applied using Required Skills and Knowledge
	2.8	Ongoing checks of quality of the work are undertaken in accordance with given instructions and established procedures
3 Complete work and relevant documentation	3.1	Systems are monitored or activated to ensure they are operating both safely and effectively
	3.2	Accidents and injuries are reported in accordance with established procedures where applicable
	3.3	Work site is rehabilitated, cleaned up and made safe in accordance with given instructions and established procedures
	3.4	Tools, equipment and any surplus resources and materials are, where appropriate, cleaned, checked and returned to storage in accordance with established procedures
	3.5	Relevant work permit(s) are signed off and equipment is returned to service in accordance with requirements
	3.6	Repaired and installed equipment is brought back on line in accordance with standard operating procedures
	3.7	Work completion records, reports as installed and modified, drawings and documentation and

ELEMENT

PERFORMANCE CRITERIA

information are finalised and processed and
appropriate persons notified

Required Skills and Knowledge

REQUIRED SKILLS AND KNOWLEDGE

7) This describes the skills and knowledge and their level, required for this unit.

Evidence shall show that knowledge has been acquired of safe working practices for organising the repair of faults in LPG processing/storage facilities and equipment.

All knowledge and skills detailed in this unit should be contextualised to current industry practices and technologies. The extent of the required skills and knowledge is provided below. It forms an integral part of this unit.

KS01-G620A PLG processing/storage facility and equipment repair

Evidence shall show an understanding of safe working practices for organising the repair of faults in LPG processing/storage facilities and equipment in accordance with relevant legislation, codes, regulations and established procedures to an extent indicated by the following aspects:

T1. Relevant Australian Standards, guidelines and codes of practice

T2. Relevant WHS/OHS policies and procedures.

- Safety signs including workplace hazards and warnings

T3. LPG processing/storage facilities

- Requirements, specifications and plant operation
- Variations and irregularities identification
- Safety
- Gas alarm and communication equipment
- Ignition prevention/control
- Leak testing requirements

T4. Personal Protection Equipment

- Types, application, checking, maintenance and storage

T5. Hazard identification, risk assessment and control

- Work Permits, JHA's, JSA's, JSEA's, SWM's, etc.
- Use of spill kits and PPE

T6. Accidents and emergency

- Types: fire, gas leak
- Emergency response equipment and procedures
- Reporting

REQUIRED SKILLS AND KNOWLEDGE

T7. Scheduled maintenance requirements

T8. Fault identification

T9. Organising of repair and replacement of components and parts

T10. Shut-down procedures

- Manual
- Emergency

T11. Organisation's policies, quality requirements, specifications, forms and reports for work activities

Evidence Guide

EVIDENCE GUIDE

8) The Evidence Guide forms an integral part of this Competency Standard Unit and shall be used in conjunction with all components parts of this unit and performed in accordance with the Assessment Guidelines of this Training Package.

Overview of Assessment 8.1)

Longitudinal competency development approaches to assessment, such as Profiling, require data to be reliably gathered in a form that can be consistently interpreted over time. This approach is best utilised in Apprenticeship programs and reduces assessment intervention. It is the Industry's preferred model for apprenticeships. However, where summative (or final) assessment is used it is to include the application of the competency in the normal work environment or, at a minimum, the application of the competency in a realistically simulated work environment. It is recognised that, in some circumstances, assessment in part or full can occur outside the workplace. However, it must be in accord with Industry and Regulatory policy in this regard.

Methods chosen for a particular assessment will be influenced by various factors. These include the extent of the assessment, the most effective locations for the assessment activities to take place, access to physical resources, additional safety measures that may be required and the critical nature of the competencies being assessed.

The critical safety nature of working with electricity, electrical equipment, gas or any other hazardous substance/material carries risk in deeming a person competent. Hence, sources of evidence need to be 'rich' in nature so as to minimise error in judgment.

Activities associated with normal every day work have a bearing on the decision as to how much and how detailed the data gathered will contribute to its 'richness'. Some skills are more critical to safety and operational requirements while the same skills may be more or less frequently practiced. These points are raised for the assessors to consider when choosing an assessment method and developing assessment instruments. Sample assessment instruments are included for Assessors in the Assessment Guidelines of this Training Package.

**Critical aspects 8.2)
of evidence
required to
demonstrate
competency in
this unit**

Before the critical aspects of evidence are considered all prerequisites shall be met.

- Evidence for competence in this unit shall be considered holistically. Each element and associated Performance Criteria shall be demonstrated on at least two occasions in accordance with the 'Assessment Guidelines — UEG11'. Evidence shall also comprise:
 - A representative body of work performance demonstrated within the timeframes typically expected of the discipline, work function and industrial environment. In particular this shall incorporate evidence that shows a candidate is able to:
 - Implement Occupational Health and Safety workplace procedures and practices including the use of risk control measures as specified in the Performance Criteria and range
 - Apply sustainable energy principles and practices as specified in the Performance Criteria and range
 - Demonstrate an understanding of the required skills and knowledge as described in this unit to such an extent that the learner's performance outcome is reported in accordance with the preferred approach; namely a percentile graded result, where required by the regulated environment
 - Demonstrate an appropriate level of employability skills
 - Conduct work observing the relevant Anti discrimination legislation, regulations, policies and workplace procedures
- Demonstrate performance across a representative range of contexts from the prescribed items below.
 - Safe working practices for organising the repair of faults in LPG processing/storage facilities and equipment in accordance with relevant legislation, codes, regulations and established procedures as described in 9.) Range Statement and including:

Range of tools/equipment/procedures/workplace		
Group	The minimum number of items on which skill is to be demonstrated	Item List
A. Equipment	At least 7	• Gas detectors • Purging gas • Hand tools

		• LPG hoses • Flare • Valves • Compressor • Vessels • Pump • Road tanker • Control and instrumentation equipment
B. Faults:	At least 7	• Gas leak • 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 • Cylinder scales out of calibration • Meter out of calibration
C. Documentation:	All	• Item maintenance record • Work permit • Job card documentation to inform relevant authorities, company persons or manufacturer • WHS/OHS, environmental and associated requirement documentation
D. Unplanned event	At least one occasion	Deal with an unplanned event by drawing on required skills and knowledge to provide appropriate solutions incorporated in the holistic assessment with the above listed items

**Context of and
specific
resources for
assessment**

8.3)

This unit should be assessed as it relates to normal work practice using procedures, information and resources typical of a workplace. This should include:

- WHS/OHS policy and work procedures and instructions.
- Suitable work environment, facilities, equipment and materials to undertake actual work as prescribed by this Competency Standard Unit.
- Appropriate environmental regulation and work practices.
- Appropriate organisational requirements.
- Appropriate work environment, equipment and tools.

These should be part of the formal learning/assessment environment.

Assessment of this competency must also be undertaken in either an actual workplace or under a simulated work environment.

Where simulation is considered a suitable strategy for assessment, conditions must be authentic and as far as possible reproduce and replicate the workplace and be consistent with the approved industry simulation policy.

The resources used for assessment should reflect current industry practices in relation to locating, proving and protecting utility assets.

**Method of
assessment**

8.4)

This Competency Standard Unit shall be assessed by methods given in Volume 1, Part 3 'Assessment Guidelines'.

Note: Competent performance with inherent safe working practices is expected in the Industry to which this Competency Standard Unit applies. This requires that the required Skills and Knowledge are assessed in a structured environment which is primarily intended for learning/assessment and incorporates all

necessary equipment and facilities for learners to develop and demonstrate the required skills and knowledge described in this unit.

**Concurrent
assessment and
relationship
with other units**

8.5)

There are no recommended concurrent assessments with this unit, however in some cases efficiencies may be gained in terms of learning and assessment effort being concurrently managed with allied Competency Standard Units where listed.

UEGNSG132A	Carry out work activities in a gas industry work environment
UEGNSG141A	Apply Workplace Health and Safety regulations codes and practices in the gas industry
UEGNSG140A	Apply environmental policies and procedures in the utilities industry
UEGNSG134A	Establish a utilities infrastructure work site
BSBFLM312B	Contribute to team effectiveness
BSBFLM303C	Contribute to effective workplace relationships

Range Statement

RANGE STATEMENT

9) *This relates to the competency standard unit as a whole providing the range of contexts and conditions to which the Performance Criteria apply. It allows for different work environments and situations that will affect performance.*

This Competency Standard Unit shall be demonstrated in relation to organising the repair of faults in gas processing or storage facilities and equipment.

The following constants and variables included in the element/Performance Criteria in this unit are fully described in the Definitions Section of this volume and form an integral part of the Range Statement of this unit:

- Appropriate persons
- LPG facility plant and equipment
- Types of faults
- Permit to Work
- Documentation (3)

Unit Sector(s)

Not applicable.

Competency Field

Competency Field	11)
	LPG.