



Australian Government

Department of Education, Employment and Workplace Relations

UEGNSG611A Control LPG storage/processing operations

Release: 1

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Modification History

Not Applicable

Unit Descriptor

Unit Descriptor

1)

This Competency Standard Unit covers the control of LPG storage/processing operations. The competency standard refers to utilisation of resources; operational; monitoring; referring to the appropriate persons; identifying types of equipment and faults and developing the required reports.

Application of the Unit

Application of the Unit

3)

This competency standard shall apply to any work site where liquefied petroleum gas operations occur.

Licensing/Regulatory Information

License to practice

3.1)

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.

Pre-Requisites

Prerequisite Unit(s) 2)

Competencies 2.1)

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

Nil

Employability Skills Information

Refer to the Evidence Guide

Elements and Performance Criteria Pre-Content

5) 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 control of operations	1.1	Work schedules, including drawings, plans, requirements, established procedures and material lists are detailed, analysed if necessary by site inspection and the extent of the preparation of the work determined for planning and coordination
		1.2	Work is prioritised, processing priorities are determined and sequenced for the most efficient and effective outcome following consultation with others for completion within acceptable timeframes to a quality standard and in

ELEMENT	PERFORMANCE CRITERIA
	accordance with established procedures
1.3	Risk control measures for identified hazards are prioritised, implemented and monitored against the work schedule
1.4	OHS, environmental and sustainable energy policies and procedures related to the work are identified to ensure safe systems of work are followed
1.5	Relevant work permits are secured to coordinate the performance of work according to requirements and established procedures
1.6	Resources including appropriately licensed persons, equipment, tools and personal protective equipment required for the job are identified, scheduled, coordinated and confirmed in a safe and technical working order
1.7	Clients are provided with possible solutions and options within the scope, acceptable cost and requirements
1.8	Liaison and communication issues with authorised persons, authorities, clients and land owners are resolved and activities coordinated to carry out work
1.9	Persons participating in the work, including plant operators and contractors are fully briefed and respective responsibilities coordinated and authorised where applicable in accordance with establish procedures
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
2 Control operations	2.1 OHS policies and procedures and safe work practices are followed to eliminate or minimise incidents and hazards
	2.2 First Aid and other related work procedures such as systems isolation are performed according to

ELEMENT	PERFORMANCE CRITERIA
	requirements and established procedures
2.3	Information concerning the operation of the storage or processing system is monitored and conveyed to relevant persons and other work areas to ensure safe and efficient system
2.4	Work is performed and coordinated in accordance with a work schedule and to requirements
2.5	Alarm codes are correctly interpreted and acknowledged and other hazards, OHS risks and control measures are monitored and preventative action taken and appropriate authorities consulted, where necessary, in accordance with requirements and established procedures
2.6	Remedial actions are taken to overcome any shortfalls encountered in the work schedule according to requirements and/or established procedures
2.7	Essential Knowledge and Associated Skills are applied to ensure completion in an agreed timeframe and to quality standards with a minimum of waste according to requirements
2.8	Solutions to non-routine problems are identified and actioned using Essential Knowledge and Associated Skills according to requirements
2.9	Ongoing checks of quality of the work are undertaken in accordance with requirements and established procedures to ensure a quality outcome is achieved for the client/customer to community and industry standards
3 Shut down operations	3.1 Work undertaken is checked against works schedule for conformance with requirements, anomalies are reported and solutions identified in accordance with established procedures
	3.2 Accidents and injuries are reported and followed up in accordance with requirements and established procedures

ELEMENT**PERFORMANCE CRITERIA**

- 3.3 Emergency shutdown procedures are applied in the event of serious equipment failure or operational parameters being exceeded
- 3.4 Relevant work permit(s) are signed off and system is returned to service and advice is given to clients in accordance with requirements
- 3.5 Works completion records, reports as installed/modified drawing(s) and documentation and information is confirmed, processed and the appropriate persons notified

Required Skills and Knowledge**REQUIRED SKILLS AND KNOWLEDGE**

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

Evidence shall show that knowledge has been acquired of safe working practices, Controlling LPG Storage/Processing Operations. The extent of the essential knowledge and associated skills (EKAS) required is given in Volume 2 - Part 2.2 EKAS. It forms an integral part of this unit.

- G 3.6.1 Working safely in an LPG environment
- G 3.6.2 Understanding the correct use of plant and equipment in an LPG environment
- G 3.6.3 Static electricity
- G 3.6.4 LPG communication including the recording of LPG information
- G 3.6.5 The LPG production process
- G 3.6.6 Technical drawings

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 of evidence required to demonstrate competency in this unit

8.2)

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 UEG06'. Evidence shall also comprise:

- A representative body of Performance Criteria 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 essential knowledge and associated skills 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 skills enabling employment
 - Conduct work observing the relevant Anti discrimination legislation, regulations, polices and workplace procedures
 - Demonstrate performance across a representative range of contexts from the prescribed items below.

Range of tools/equipment/materials/procedures/workplaces/other variables		
Group No	The minimum number of items on which skill is to be demonstrated	Item List
A	At least 5	Resources required: Pumps and compressors

		<p>Valves</p> <p>Vessels</p> <p>Control and monitoring equipment</p> <p>Mixing equipment</p> <p>Sampling equipment</p> <p>Air equipment</p>
B	At least 3	<p>Unexpected events:</p> <p>Gas leaks and fire</p> <p>Equipment failure</p> <p>LPG supply levels</p> <p>Electricity supply fires</p>
C	At least 4	<p>Monitoring of storage/processing facilities:</p> <p>Monitoring pressure</p> <p>Temperature</p> <p>Levels</p> <p>Corrosion</p> <p>Gas leaks</p> <p>Stock levels</p> <p>Security</p>
D	At least 5	<p>Equipment faults:</p> <p>Electrical problems</p> <p>Over filled vessel</p> <p>Compressor failure</p> <p>Pump failure</p> <p>Out of current inspection status</p> <p>Gauge failure</p> <p>Hose rupture/leaks</p> <p>Instruments out of calibration</p> <p>Non-flow of LPG</p>

E	All	Reports: Routine inspections (daily readings, monthly checks) Scheduled maintenance activities Mandatory or statutory inspections Hazard and incident reports
F	All	Working safely in an LPG environment Correct use of plant and equipment in an LPG environment Knowledge of the effects/potential effects of static electricity Recording information
G	At least one occasion	Deal with an unplanned event by drawing on essential knowledge and associated skills 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:

- 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.

In addition to the resources listed above, in Context of and specific resources for assessment, evidence should show demonstrated competency in controlling LPG

storage/processing operations.

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

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 specified Essential Knowledge and Associated Skills 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 essential knowledge and associated skills 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.

BSBFLM405A Implement operational plans

BSBCMN411A Monitor a safe workplace

Key Competencies

8.6)

Evidence that particular Key Competencies have been achieved within this Competency Standard Unit is in the context of the following Performance Criteria of evidence. See Volume 2, Part 4 for an explanation of Key Competencies and levels of this Training Package.

Key Competencies	Example of Application	Performance Level
How are ideas and information communicated within this competency?	Refer to the following Performance Criteria for examples of application: 1.7; 1.8; 1.9	3

How can information be collected, analysed and organised?	Refer to the following Performance Criteria for examples of application: 1.2; 1.3	2
How are activities planned and organised?	Refer to the following Performance Criteria for examples of application: 1.2; 1.6	2
How is team work used within this competency?	Refer to the following Performance Criteria for examples of application: 1.2; 1.9	2
How are mathematical ideas and techniques used?	Refer to the following Performance Criteria for examples of application:	N/A
How are problem solving skills applied?	Refer to the following Performance Criteria for examples of application: 2.8	3
How is use of technology applied?	Refer to the following Performance Criteria for examples of application: 3.5	2

Skills Enabling Employment

8.7)

Evidence that competency in this unit incorporates skills enabling employment is in the context of the following performance. See Volume 2, Part 5 for definitions and an explanation of skills enabling employment.

Skills for Employment		Example of Application
1	Developing and using skills within a real workplace	Refer to the following Performance Criteria for examples of application: All

2	Learning to learn in the workplace	Refer to the following Performance Criteria for examples of application: 1.2; 1.3; 2.8
3	Reflecting on the outcome and process of work task	Refer to the following Performance Criteria for examples of application: 3.5
4	Interacting and understanding of the context of the work task	Refer to the following Performance Criteria for examples of application: 1.2; 1.8; 2.8
5	Planning and organising the meaningful work task	Refer to the following Performance Criteria for examples of application: 1.2; 1.3
6	Performing the work task in non-routine or contingent situations	Refer to the following Performance Criteria for examples of application:
		2.8

Range Statement

RANGE STATEMENT

7) 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/may be demonstrated in relation to the control LPG storage/processing operations.

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:

Resources

Operational

Monitoring

Relevant persons

Types of equipment faults

Reports

Unit Sector(s)

Not Applicable

Literacy and numeracy skills

Literacy and numeracy skills 2.2)

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 4 Writing 4 Numeracy 4

Competency Field

Competency Field 4)
LPG.