



Australian Government

UEGNSG708A Pressure Test Residential and Small Commercial Gas Installations

Release 1

UEGNSG708A Pressure Test Residential and Small Commercial Gas Installations

Modification History

Not applicable.

Unit Descriptor

Unit Descriptor

1) Scope:

1.1) Descriptor

This unit covers pressure testing residential and small commercial gas installations and associated components by a designated gas industry person following company standard operating procedures in accordance with AS5601 and State/Territory regulatory requirements.

This encompasses the use of hand tools and testing equipment to pressure test the customer piping system and associated fittings and components and completing required records and appropriate documentation.

Application of the Unit

Application of the Unit 2)

This competency standard shall apply to any basic and safe residential and small commercial work site where Gas Industry operations occur, 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 AQF 2 entry level 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, workplace health and safety/occupational health and safety and where applicable contracts of training.

In the workplace:

The skills and knowledge described in this unit are generally subject to State/Territory Gas Fitting licence regulations for gas connections and installations.

However, some regulators require that before a fuel gas network starts to supply fuel gas to a gas system, the person connecting fuel gas to the gas system must ensure the gas system is pressure tested in accordance with the current version AS/NZS 5601 Gas installations or equivalent and there is no significant leakage of fuel gas from the gas system. This unit provides the required knowledge and skills to enable the person connecting fuel gas to the gas system to carry out this pressure test.

They are also subject to those regulations 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 limit the age at which a person can operate certain equipment.

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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:

Prerequisite Unit(s) 4)

UEGNSG141 A	Apply Workplace Health and Safety regulations, codes and practices in the gas industry
UEGNSG005 A	Prepare to work in the gas industry
UEGNSG132 A	Carry out basic work activities in a gas industry work environment

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)**

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 Prepare to pressure test gas installation	1.1 Instructions for the work to be performed are received and confirmed to ensure clear understanding
	1.2 Relevant requirements and established procedures to be followed for the work are provided and discussed with relevant persons to establish and confirm the work schedule
	1.3 WHS/OHS, environmental and sustainable energy policies and procedures are received and confirmed to ensure they are understood.
	1.4 Equipment, tools and personal protective equipment needed for pressure testing are identified, obtained and checked for correct operation and safety.
	1.5 Resources and materials needed to carry out the pressure test are confirmed and obtained in accordance with established procedures.
	1.6 Client issues are referred to appropriate persons in accordance with industry standards and established procedures
	1.7 Work site is preparation, safety plan and work schedule are confirmed in accordance with established procedures
2 Carry out pressure test of gas installation	2.1 WHS/OHS policies and procedures and safe work practices for the pressure test are followed to eliminate or minimise incidents and hazards
	2.2 Schedule of work is followed to ensure work is completed in an agreed time, to a quality standard and with a minimum of waste
	2.3 Operational knowledge for utilising correct and safe use of basic equipment and tools to perform conformance test is confirmed.
	2.4 Pressure test of the gas installation is undertaken using appropriate pressure testing equipment following company procedures and

ELEMENT**PERFORMANCE CRITERIA**

		regulatory requirements
	2.5	Customer piping system and associated components including appliances are pressure tested for conformance to AS 5601 requirements
	2.6	Installation is left connected or disconnected, depending on results of pressure test.
	2.7	Ongoing checks of quality of the work are undertaken in accordance with instructions and requirements
3 Complete pressure test and relevant documentation	3.1	WHS/OHS risk control work completion measures and procedures are followed.
	3.2	Final checks including visual observation is performed to ensure the quality of the work complies with established procedures
	3.3	Appropriate persons are notified of completion of the work
	3.4	Equipment and tools are, where appropriate, cleaned, checked and returned to storage or disposed of in accordance with established procedures
	3.5	Work area is tidied and made safe and sustainable energy practices are followed
	3.6	Appropriate records and documentation are updated in accordance with instructions and established procedures as required by the regulator.

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 carrying out work in a gas industry environment.

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-G708A Gas Installation Pressure Testing

Evidence shall show an understanding of pressure testing residential and small commercial gas installations in accordance with relevant legislation, standards, codes and established procedures to an extent indicated by the following aspects:

T1. Relevant legislation, Australian Standards, codes, regulations and procedure requirements

T2. Safety requirements

- hazards, risk assessment and control measures
- identify environmental and safety hazards, assess risks and implement control measures which includes the use of stray current testing and protection, bonding clamps and PPE
- safety requirements for entering domestic and commercial customer sites

T3. Customer liaison

T4. Procedures for pressure testing of gas installation to AS 5601

- Australia Standard requirements
- regulatory requirements
- enterprise guidelines and requirements
- tools and equipment

T5. Documentation and reporting pressure testing of gas installations

Evidence Guide

EVIDENCE GUIDE

8) The Evidence Guide forms an integral part of this 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 practised. These points are raised for the assessors to consider when choosing an assessment method and developing assessment instruments. Sample assessment instruments are included 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 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 required knowledge 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, policies and workplace procedures
 - 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.
 - Pressure testing residential and small commercial gas installations as described in 9.) Range Statement and including:

Range of tools/equipment/procedures/workplace		
Group No	The minimum number of items on which skill is to be demonstrated	Item List
A. Procedures	All	• Work utilising relevant OHS/WHs legislation, regulations, codes of practice, policies and procedures • Communicate effectively

		with appropriate personnel and customers • Accurately complete records and documentation • Follow work schedules including meeting appointments • Effectively use tools and equipment to test residential & small commercial gas installation • Use of pressure testing equipment Drop test/ bubble leak detector etc. • Advise stakeholders of potentially dangerous or nonconforming installations
B. Requirements	All	• PPE • Documentation for testing of residential & small commercial gas installation
C. Unplanned events	At least on one occasion	Respond to an unplanned event by drawing on required knowledge and 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 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 conducting appliance relights.

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 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 Unit applies. This requires that the specified required Knowledge and 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 required Knowledge and 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 Units where listed.

Nil

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 unit must be demonstrated in relation to pressure testing residential and small commercial gas installations and associated components by a designated gas industry person following company standard operating procedures in accordance with AS5601 and State/Territory regulatory requirements.

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
- Hand tools to test residential & small commercial gas installations including spanners, screw drivers, soap tester, pressure testers.
- Safe working procedures
- Legislative requirements
- Personal Protective Equipment

Unit Sector(s)

Gas Industry

11. Competency Field

Support services