



**Australian Government**

# **UEGNSG004A Locate, prove and protect utility assets**

**Release 1**

## UEGNSG004A Locate, prove and protect utility assets

### Modification History

This unit is a revised version of the UEG11 unit UEGNSG003A Locate, prove and protect gas distribution assets

### Unit Descriptor

#### Unit Descriptor

#### 1) Scope:

##### 1.1) Descriptor

This unit covers locating, proving and protecting utility assets in accordance with established procedures.

This encompasses low level short term protection of assets on basic work sites where utility industry operations occur including the gas industry, electricity supply industry, electrotechnology industry and the water industry.

Note: This competency standard unit does not include the supervision of third party works near a utility asset.

### Application of the Unit

#### Application of the Unit 2)

This competency standard shall apply to any safe work site where utility industry operations occur including the gas industry, electricity supply industry, electrotechnology industry and the water industry, 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 competency and 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 and where applicable contracts of training.

### **In the workplace**

The skills and knowledge described in this unit are not subject to licence regulation other than those directly related to Workplace Health and Safety/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. 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 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

**Prerequisite Unit(s) 4)**

UEGNSG005A Prepare to work in the gas industry

UEGNSG132A 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)**

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
<b>1 Prepare to locate, prove and protect utility assets</b>	<p>1.1 WHS/OHS and environmental measures for the site are identified, obtained and understood.</p> <p>1.2 Relevant requirements and established procedures for the site are provided and discussed with relevant persons to establish and confirm the work schedule.</p> <p>1.3 WHS/OHS, environmental and sustainable energy policies and procedures are received and confirmed, including relevant clearances/ no-go zones.</p> <p>1.4 Hazards are identified, WHS/OHS risks assessed and control measures are prioritised, implemented and monitored according to established procedures</p> <p>1.5 Scope of responsibility under the relevant work permit and/or relevant notification is received and confirmed with relevant persons according to requirements and established procedures.</p> <p>1.6 Appropriate persons are consulted to ensure the work is coordinated effectively with others involved</p> <p>1.7 Tools, equipment and personal protective equipment needed to carry out the work are identified, obtained and checked for correct operation and safety.</p> <p>1.8 Materials, plans, diagrams, drawing and resources required for the work are obtained in accordance with established routines and procedures.</p> <p>1.9 Site preparation, safety plan and the work schedule are confirmed in accordance with established procedures.</p>
<b>2 Locate, prove and protect utility assets</b>	<p>2.1 WHS/OHS and risk control measures, schedule of work and standard operating procedures for carrying out the work are followed.</p> <p>2.2 Machines/plant/equipment are checked as being isolated where necessary in strict accordance WHS/OHS requirements and procedures.</p> <p>2.3 Appropriate materials, tools and equipment are</p>

<b>ELEMENT</b>	<b>PERFORMANCE CRITERIA</b>
	selected and used correctly and safely.
2.4	Asset is located and clearly marked using appropriate equipment and tools.
2.5	Location of the asset proven using approved methods where permitted.
2.6	Effective communication occurs with third parties when necessary prior to undertaking activities to ensure the protection of the utility asset
2.7	Utility asset is adequately protected physically to ensure it is safe and secure.
2.8	Work is carried out efficiently, to the required quality standard without waste of materials or damage to apparatus, equipment, the surrounding environment or services and using sustainable energy principles.
2.9	Any WHS/OHS risks and incidents are reported to the immediate authorised persons for directions according to established procedures.
2.10	Procedures for referring non-routine events to immediate supervisor for directions are followed.
<b>3 Complete work and of relevant documentation</b>	<b>3.1</b> WHS/OHS risk control work completion measures and procedures are followed.  <b>3.2</b> Work site is tidied and made safe in accordance with established procedures or handed over for further work.  <b>3.3</b> Tools, equipment and any surplus resources and materials are cleaned, checked and securely stored.  <b>3.4</b> Appropriate persons are notified of work completion according to established procedures.  <b>3.5</b> Work completion documentation is completed accurately and provided to appropriate persons in accordance with and established procedures.

## Required Skills and Knowledge

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

Evidence shall show that knowledge has been acquired of safe working practices and identifying, locating, proving and protecting utility assets.

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-G004A Utility assets

Evidence shall show an understanding of identifying, locating, proving and protecting utility assets in accordance with relevant legislation, standards, codes and established procedures to an extent indicated by the following aspects:

T1. Relevant legislation, regulations, codes

T2. Enterprise procedures, plans and drawings

- asset plan reading

T3. Relevant Safety and Environmental hazards and mitigation measures

T4. Locate and mark utility and asset services

- relevant authorities or enterprises to contact regarding the location of other utilities services (gas, water, electricity, telecommunication, sewerage and storm water) including Dial Before You Dig.
- visual identification of utilities and service
- types of electronic and manual service locators

T5. Prove assets

- clearances and no-go zones requirements
- hand excavation techniques
- non-destructive methods (Hydrovac or Airvac)

T6. Identification of utilities and services conduits and cables

T7. Protection of assets:

- communication with relevant personnel
- installation of protection systems (barricades and signage)
- marking of assets

## 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 practiced. 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 of evidence**      **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 — 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 Workplace Health and Safety/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 skills enabling employment
  - 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:
  - Locating, proving and protecting utility assets as described in the 9.) Range Statement and including:

**Range of tools/equipment/procedures/workplace**

<b>Group No</b>	<b>The minimum number of items on which skill is to be demonstrated</b>	<b>Item List</b>

ed	
<b>A – Tools and Equipment</b>	All
<b>B – Procedures</b>	All
<b>C – Unplanned Events</b>	At least one occasion

- PPE
- Service locators
- Traffic barricades

- Interpret alignment sheets, maps/plans, technical drawings and symbols
- Obtain and interpret procedures and/or work instructions
- Apply relevant OHS legislation, regulations, codes of practice, policies and procedures
- Advise stakeholders of upcoming work, and
- Utilise Dial-Before-You-Dig information
- Prove location of asset
- Visually inspect asset
- Protecting assets

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 8.3)**  
**and specific**  
**resources for**  
**assessment**

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 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. Assessment must also integrate the key competencies.

Note:

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 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 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 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.

## 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 shall be demonstrated in relation to identifying, locating, proving and protecting utility assets in accordance with relevant legislation, standards, codes and established procedures. This encompasses basic and safe work sites where utility industry operations occur including the gas industry, electricity supply industry, electrotechnology industry and the water industry.

It includes low level short term protection of assets, required for example while excavation is taking place. This includes communication with relevant personnel, installation of protection systems (barricades and signage) and marking of assets.

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:

- Legislation
- Safety equipment
- Emergency and hazardous work situations
- Established procedures and requirements
- Personal Protective equipment

## Unit Sector(s)

Not applicable.

## Competency Field

**Competency Field 11)**

Utilities