



Australian Government

Department of Education, Employment and Workplace Relations

UEGNSG302B Maintain pipeline easements

Release: 1

UEGNSG302B Maintain pipeline easements

Modification History

Not applicable.

Unit Descriptor

Unit Descriptor

1) Scope:

1.1) Descriptor

This Competency Standard Unit covers maintaining of pipeline easements. It encompasses the surveillance of the easement, which may be either performed by aerial or on the ground, to determine the condition of the easement and third party activity. It also includes any use of research documentation; civil activities; performance of pipeline easement and maintenance.

Application of the Unit

Application of the Unit 2)

This competency standard shall apply to any basic and safe work site where Gas Industry operations occur. It could also apply, where applicable to other workplaces in the electricity supply industry (transmission and distribution and generation), the electrotechnology industry and the water industry, subject to all Occupational Health and Safety and duty of care requirements being met for the workplace.

Licensing/Regulatory Information

License to practice 3)

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,

License to practice **3)**
 telecommunications, anti discrimination and training.
 Commonwealth, State/Territory or Local Government
 legislation and regulations may exist that limits the age of
 persons who can operate certain equipment.

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:

Nil

**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 Prepare pipeline easement inspection and maintenance	1.1 Work instructions are received and confirmed
	1.2 Topographical and geographical maps are used to determine the selection of access and pipeline route and the work schedule checked for a quality outcome and to minimise risk and damage to property, commerce and individuals in accordance with established procedures
	1.3 OHS, environmental and sustainable energy policies and procedures to be followed for the work to be performed are received and confirmed
	1.4 Easement is inspected and assessed using appropriate mediums and civil activities to determine in accordance with standard operating procedures relevant requirements
	1.5 Discussion occurs with all persons to establish and confirm work schedule
	1.6 Suggestions to assist with maintaining pipeline easements are made to others involved in the work
	1.7 Hazards are identified, OHS risks assessed and control measures are prioritised, implemented and monitored including emergency exits kept clear according to established procedures
	1.8 Scope of responsibility under the relevant work permit are received and confirmed according to requirements and established procedures with

ELEMENT	PERFORMANCE CRITERIA
	relevant persons
	1.9 Resources including equipment such as aerial requirements, tools and personal protective equipment required for the job are obtained and in working order according to established procedures
	1.10 Relevant responsibilities associated with First Aid and other related work safety procedures at the worksite are confirmed in accordance with requirements and established procedures to ensure safety measures and followed in the instance of an incident
	1.11 Client issues are referred to appropriate persons in accordance with industry and community standards
2 Maintain pipeline easement and surrounding environment	2.1 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, excavations, trenches, or aloft, and use of power tools, techniques and practices are safely followed in accordance with given instructions and according to requirements confirmed to eliminate the prospects of incidents
	2.3 Work area is isolated and made safe and civil activities and maintenance of pipeline easements is carried out in accordance with given instructions and established procedures
	2.4 Easement is maintained and confirmed to ensure completion in an agreed timeframe and to quality standards with a minimum of waste according to requirements and established procedures
	2.5 Operational knowledge as applied to potential hazards and safety risks are reported to the immediate authorised persons for directions according to established procedures

ELEMENT	PERFORMANCE CRITERIA
	2.6 Non-routine events are referred to the immediate authorised persons for directions according to established procedures
	2.7 Remedial action associated with maintaining pipeline easements are dealt with using acquired known solutions and skills related to routine procedures to ensure work instructions and established procedures are met
	2.8 Ongoing checks of quality of the work are undertaken in accordance with given instructions and established procedures
3 Complete pipeline easement and civil activities and notify appropriate persons	3.1 Pipeline easement is monitored to ensure pipeline integrity and the work undertaken is checked against work schedule and anomalies reported to authorised persons in accordance with established procedures
	3.2 Accidents and incidents are actioned and reported to authorised persons in accordance with established procedures
	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 Appropriate persons are notified of work completion according to established procedures
	3.6 Work completion records, report forms and data sheets are completed accurately in accordance with given instructions and established procedures

Required Skills and Knowledge

REQUIRED SKILLS AND KNOWLEDGE

8) 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 for maintaining pipeline easements to perform work in a utilities industry work environment.

All knowledge and skills detailed in this unit should be contextualised to current industry practices and technologies.

KS01-G302 Pipeline easements

B

G 2.1.1 Work in the gas sector

Evidence shall show an understanding of how work is conducted in the Gas Industry, specifically:

- The Gas Industry in Australia
- Australian gas resources
- Types of gas and uses
- Combustion.

G 2.1.2 Identify roles of statutory authorities

Evidence shall show an understanding of the roles of statutory authorities (government agencies, both State and Federal) that operate in the Gas Industry, including identifying:

- Statutory bodies
- Roles of statutory bodies
- Employer and employee responsibilities to statutory bodies.

G 2.1.3 Identify employment roles and responsibilities

Evidence shall show an understanding of the roles of major groups in the Gas Industry, that is employers and employees, including:

- The role of the employer
- Industry associations
- Employer obligations to safety
- Identification of disadvantaged and minority groups in Australian society

- Employers obligations to persons from disadvantaged and minority groups
- Employers obligations to occupational health and safety
- The role of commonwealth and state training regulatory authorities and industry skills councils and state training advisory bodies
- Roles and responsibilities of gas industry employees
- The employment contract
- Working to safety requirements
- Work according to lawful commands
- Belonging to employee organisations
- How to work with people from disadvantaged and minority groups
- Understanding the employees obligations to occupational health and safety
- Sources of support.

G 2.1.4 Apply relevant OHS regulations, policies and procedures

Evidence shall show an understanding of the basic workplace health and safety legislation and how this applies to individuals in a Gas Industry workplace, indicated by the following:

- Employer's responsibilities to relevant OHS legislation
- Employee's responsibilities to OHS legislation and organisation's policies and procedures
- OHS policies and procedures at the worksite.
- Australian Standards, guidelines and codes of practice

G 2.1.5 Work safely in the gas industry by reducing risk and using correct PPE

Evidence shall show an understanding of how to work safely in the gas industry indicated by the ability to:

- Correctly interpret and comply with Safety Signs including workplace Hazards, Warnings and PPE requirements
- Correctly interpret gas markers
- Identify the correct PPE required for work in the Gas Industry
- Locate and comply with procedures for correctly checking, maintaining and storing PPE
- Apply the process of Hazard identification, Risk assessment and Control
- Complete Risk Assessment forms such as Work Permits and JHA's, JSA's, JSEA's, SWM's etc

- Report workplace hazards

G 2.1.6 Work safely with hazardous materials and equipment

Evidence shall show an understanding of what constitutes hazardous materials and the equipment and processes used to safely work with these indicated by the following:

- Identify hazardous materials and equipment
- Location and purpose of Material Safety Data Sheets (MSDS)
- Read, interpret and discuss MSDS
- Knowledge of methods for safe disposal of hazardous waste materials
- Read, interpret and discuss relevant manufacturer's specifications
- Use and dispose of hazardous materials and equipment safely
- Use of spill kits and PPE

G 2.1.7 Apply safe manual handling techniques in the workplace

Evidence shall show an understanding of manual handling and how to apply this knowledge to handling heavy and awkward objects in a Gas Industry workplace, specifically:

- Principles for managing manual handling
- Characteristics and types of safe manual handling
- Safe manual handling techniques
- Manual handling and risk management

G 2.1.8 Control traffic at the work-site

Evidence shall show knowledge and skills in coordinating traffic flow at a workplace where traffic control is required, that is, where work is conducted on or near a road, indicated by the following:

- Read and interpret relevant traffic authority regulations for traffic control at a worksite
- Identify signs and devices required to control pedestrians and traffic at a worksite depending on traffic flow volumes
- Apply techniques for controlling pedestrians and traffic at various worksites
- Use procedures for monitoring traffic controls
- Set up and monitor pedestrian and traffic controls

G 2.1.9 Respond to emergency and accident situations

Evidence shall show knowledge and skills in dealing with emergency or accident situations at a Gas Industry

workplace, indicated by the following:

- Situations of accidents and emergency
- Comply with procedures for accidents and incidents
- Correct use of emergency equipment and procedures for a fire
- Correct use of breathing apparatus
- Correct use of gas detectors/oxygen monitoring devices
- Correct use of emergency equipment and procedures for a gas leak or vapour emission
- Report emergencies and accidents

G 2.1.14 Read and interpret Gas Industry documents

Evidence shall show an ability to read and interpret Gas Industry documents indicated by the following:

- Understand and use signs, symbols terminology and legends as used in gas industry procedures and documents
- Identify, locate and implement gas industry standards, policies and procedures
- Interpret and read basic drawings and diagrams

G 2.1.15 Complete workplace forms, and reports

Evidence shall show an ability to complete routine Gas Industry forms, memos and reports either written or electronic, indicated by the following:

- Identify, locate, interpret and use workplace forms, and reports
- Enter the required information accurately on gas industry forms and reports

G 2.1.16 Identify requirements of work activity

Evidence shall show ability to:

- Clarify expected outcomes of a work activity in a Gas Industry workplace
- Receive, clarify and respond to verbal work instructions for work activity
- Interpret and discuss an organisation's policies, quality requirements and specifications for work activity

G 2.1.17 Apply basic planning skills

Evidence shall show a demonstrated ability to apply basic planning skills in a Gas Industry workplace, indicated by the following:

- Develop checklists of tasks

- Prioritise tasks
- Identify resources required to complete tasks safely and efficiently
- Identify resource or scheduling conflicts and apply solutions
- Develop time lines to complete tasks

G 2.1.18 Conduct tasks to complete work activities

Evidence shall show ability to organise the activities to complete a job in a Gas Industry workplace, indicated by the following:

- Locate and organise equipment, tools and machinery required to complete tasks safely and efficiently
- Complete tasks according to planned sequences and within appropriate timeframes
- Understand quality assurance and work according to established and standard operating procedures

G 2.1.19 Review work activities

Evidence shall show an ability to review work activities undertaken in a Gas Industry workplace, indicated by the following:

- Check work activities against a work plan
- Seek feedback on the outcome of work activities with appropriate persons
- Report outcomes of work activities in writing or orally according to enterprise procedures

G 2.1.20 Customer relations

Evidence shall show an understanding of the requirements for providing good customer relations to Gas Industry stakeholders, indicated by the following:

- Notify stakeholders of activities
- Communicate with stakeholders within scope of responsibilities
- Refer stakeholders to appropriate parties
- Demonstrate understanding of ring fencing requirements (if applicable)
- Keep the customer informed on job progress
- Provide good customer relations

G 2.1.21 Undertake problem solving

Evidence shall show an understanding of the requirements to undertake basic problem solving in a Gas Industry workplace, indicated by the following:

- Demonstrate problem solving and diagnostics methodology
- Identify possible solutions
- Recommend probable solutions and
- Apply basic problem solving techniques

G 2.1.22 Operate in confined spaces

Evidence shall show an understanding of the requirements to recognise and operate in confined spaces in a Gas Industry workplace, indicated by the following:

- Knowledge of the requirements of Legislation, Regulations, Australian Standards and enterprise specific procedures for safe working in confined spaces
- Ability to recognise what a confined space is and the entry safety requirements
- Ability to understand and comply with manufacturers' guidelines for the safe use of PPE used in confined spaces
- Understand how and when to use gas detectors for confined spaces entry
- Understand how and when to use breathing apparatus and rescue and recovery equipment

Note: A confined spaces entry ticket would satisfy and exceed the requirements of this EKAS clause

G 2.1.25 Protect the environment

Evidence shall show an understanding and ability to perform work in the gas industry in a manner that protects the environment indicated by the following:

- Understanding of the relevant Commonwealth/State/Territory environmental legislation, regulations and codes of practice
- Understanding of employee's and employer's responsibilities to relevant environmental legislation, regulations and codes
 - Understanding and compliance with enterprise procedures for flora control
 - erosion control
 - fauna control
 - the protection of indigenous and cultural heritage sites
- Understanding the role of regulatory bodies in monitoring environmental activities, risk and incident compliance
- Understanding community expectations for protecting the environment
- Correct use of environment protection procedures, records, inspections and incident reporting
- Identifying environmental hazards
- Assessing environmental risks
- Implementing environmental control measures
- Ability to respond to workplace environmental incidents

Note: Environmental damage can be caused by chemicals, oil, water contamination, carcinogenic agents, gases, dusts, waste contamination and noise

G 2.1.26 Communicate in the workplace

Evidence shall show an understanding and ability to communicate effectively in a Gas Industry work team indicated by the following:

- Effective use oral and written communications methods to achieve work related outcomes and solutions.
- Effectively receive, interpret and respond to workplace information and instructions
- Effectively convey and report work related information to fellow workers and customers
- Interact with fellow workers in a socially and culturally

appropriate manner

G 2.3.8 Apply relevant environmental regulations in maintaining pipeline easement

Evidence shall show an understanding of the relevant regulations for maintaining Gas Industry pipeline easements, indicated by the following:

- employer's responsibilities to relevant environmental regulations
- employee's responsibilities to relevant environmental regulations and organisation's policies and procedures
- relevant environmental regulations in maintaining pipeline easements.

G 2.3.9 Monitor civil activities

Evidence shall show an understanding of the monitoring of civil activities on a Gas Industry pipeline, indicated by the following:

- Civil works activities which may affect pipeline easement (laying geo-textile, gabion baskets, concreting, reseeding of environment, cased crossings, fauna and flora control)
- Standard operating procedures in relation to monitoring civil works activities
- Procedures for monitoring civil works activities
- Records of civil works activities in accordance with standard operating procedures

G 2.3.10 Use vegetation control techniques in maintaining pipeline easements

Evidence shall show an understanding of using vegetation control techniques for maintaining pipeline easements on a Gas Industry pipeline, indicated by the following:

- regulatory requirements for controlling vegetation
- procedures for monitoring vegetation control of pipeline easements
- efficient techniques for controlling vegetation
- OHS aspects for controlling vegetation.

G 2.3.11 Use erosion control techniques in maintaining pipeline easements

Evidence shall show an understanding of using erosion control techniques for maintaining pipeline easements on a Gas Industry pipeline, indicated by the following:

- regulatory requirements for controlling erosion

- procedures for monitoring erosion of pipeline easement
- efficient techniques for controlling erosion
- health and safety aspects of controlling erosion.

G 2.3.12 Determine access to pipeline

Evidence shall show an understanding of determining access to a Gas Industry pipeline, indicated by the following:

- topographical and geographical maps
- pipeline route and appropriate method for accessing pipeline
- access to pipeline.

G 2.3.13 Inspect pipeline easement

Evidence shall show an understanding of the inspection of pipeline easement on a Gas Industry pipeline, indicated by the following:

- procedures for inspecting pipeline easement
- evidence which indicates the need for maintenance to easement which includes vegetative controls, erosion, encroachment, third party activity, signage etc
- making judgments on type of maintenance required
- completing the necessary documentation.

G 2.3.14 Maintain pipeline easement

Evidence shall show an understanding of the maintenance of pipeline easement on a Gas Industry pipeline, indicated by the following:

- relevant standard operating procedures for maintaining the easement
- procedures for completing the maintenance activity
- appropriate tools and equipment required to complete the activity
- standards required for signage and/or gates
- relevant OHS and environmental procedures and practices
- using tools and equipment safely to maintain pipeline easements.

G 2.3.15 Liaise and communicate effectively with third parties

Evidence shall show an understanding of liaising and communicating effectively with third parties on a Gas Industry pipeline, indicated by the following:

- identifying third parties

- methods for maintaining liaison with third parties
- features of effective spoken and written communication with third parties
- advising third parties of intended activities
- meetings with third parties on notified issues
- record meetings.

Evidence Guide

EVIDENCE GUIDE

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

Overview of Assessment 9.1)

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 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** 9.2)

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 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 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 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.

Range of tools/equipment/procedures/workplace		
Group No	The minimum number of items on which skill is to be demonstrated	Item List
A	All	OHS and environmental legislative requirements Erosion control documentation Vegetation control documentation Pipeline alignment drawings Topographical maps Geographical maps Pipeline access route manuals MSDS information

B	All	Laying of geo-textile Gabion baskets Concreting Reseeding the environment Cased crossings Fauna and flora control Communicating with third parties
C	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 9.3)

This unit contains Employability Skills

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 maintaining pipeline easements.

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

Method of assessment

9.4)

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

9.5)

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.

UEGNSG102B Carry out work activities in a utilities industry work environment

UEENEEE101 Apply Occupational Health and Safety regulations, codes and practices in the workplace
A

UEGNSG104B Comply with environmental policies and procedures

UEGNSG105B Establish the work site

Range Statement

RANGE STATEMENT

10) 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 the maintaining of pipeline easements.

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:

Records/documentation (1)

Third parties (1)

Civil activities (1)

Reports (1)

Unit Sector(s)

Not applicable.

Competency Field

Competency Field **11)**

Transmission.