



**Australian Government**

**Department of Education, Employment and Workplace Relations**

# **UEGNSG328A Supervise the operation of plant and equipment for the construction of transmission pipelines**

**Release: 1**

## **UEGNSG328A Supervise the operation of plant and equipment for the construction of transmission pipelines**

### **Modification History**

Not applicable.

### **Unit Descriptor**

#### **Unit Descriptor**

#### **1) Scope:**

##### **1.1) Descriptor**

This competency standard unit covers the supervision of personnel that undertake the operation of relevant plant and equipment used in the construction of transmission pipelines. This unit includes understanding the functions undertaken for transmission pipeline construction and the capabilities and the limits of plant, equipment and tools.

It also includes supervising the operations to ensure occupational health and safety, environmental and cultural heritage issues are effectively addressed in the transmission pipeline construction process.

### **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, 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.

## 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 4      Writing 4      Numeracy 4

## 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

## Employability Skills

5)

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 work schedule for use of plant and equipment

- 1.1 Work instructions are received and confirmed
- 1.2 OHS, environmental and sustainable energy policies and procedures to be followed for the work to be performed are received and confirmed
- 1.3 Check the work schedule and ensure the resources required have been checked for compliance in accordance with standard operating procedures and manufacturers specifications
- 1.4 Discussion occurs with all persons to establish and confirm work schedule
- 1.5 Information regarding previous work activities are sought and appropriate actions taken with regard to current work schedule and use of plant and equipment
- 1.6 Hazards are identified, OHS risks assessed and control measures are prioritised, implemented and monitored according to established procedures
- 1.7 Scope of responsibility under the relevant work permit are received and confirmed according to

| ELEMENT                                                                     | PERFORMANCE CRITERIA                                                                                                                                                                                                                                            |
|-----------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                                                             | requirements and established procedures with relevant persons                                                                                                                                                                                                   |
|                                                                             | 1.8 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 |
| 2 Undertake the supervision of operations as per the work schedule          | 2.1 OHS policies and procedures and safe work practices are followed to eliminate or minimise incidents and hazards                                                                                                                                             |
|                                                                             | 2.2 Instructions are provided for any remedial action associated with plant and equipment operation according to established procedures                                                                                                                         |
|                                                                             | 2.3 Instructions are provided to operators to ensure the work area is made safe in accordance with established procedures                                                                                                                                       |
|                                                                             | 2.4 Hazards and risks related to safety and plant operation are identified through the application of operational knowledge and action is taken in accordance with established procedures                                                                       |
|                                                                             | 2.5 Non-routine events are referred to the immediate authorised persons for directions according to established procedures                                                                                                                                      |
|                                                                             | 2.6 Remedial action is taken using known solutions to ensure work schedule is met                                                                                                                                                                               |
|                                                                             | 2.7 Supervision of plant and equipment operation is undertaken and ongoing checks are undertaken in accordance established procedures                                                                                                                           |
| 3 Undertake completion of work schedule according to established procedures | 3.1 Plant and equipment usage is checked against the work schedule and anomalies are reported to authorised persons in accordance with established procedures                                                                                                   |
|                                                                             | 3.2 Accidents and incidents are actioned and reported to authorised persons in accordance                                                                                                                                                                       |

## ELEMENT

## PERFORMANCE CRITERIA

with established procedures

- 3.3 Supervision of shutdown procedures is performed in accordance with established procedures to ensure environmental compliance and condition of plant and equipment is maintained
- 3.4 Tools, plant and 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 using of equipment and tools to perform work in a utilities industry work environment. 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.

### **KS01- G328A      Plant and equipment for transmission pipeline construction (Supervise)**

- G 1.1.1 Utilities industries calculations  
Evidence shall show an understanding of performing calculations as required in utilities industries workplaces, indicated by the following:
  - perform industry calculations
  - interpret graphs and tables
  - transpose formulas

- calculations include, gas rates, pressure corrections, volumes, area, measurements purging calculations
  - systematic problem solving
- G 1.1.2 Use equipment and tools in the utilities industries  
Evidence shall show an understanding of using equipment and tools in utilities industries workplaces, specifically:
- correct use of utilities industry equipment and tools which include drills, shovels, hammers, knives, saws, hand tools, small generator sets, air compressors and hoses, pneumatic and/or electric hammers, rollers and compactors, concrete and ceramic cutters, boring equipment, trenching equipment.
  - correct use of utilities industry PPE.
- G 1.1.3 Overview of workings in the utilities industries  
Evidence shall show an understanding of the different utilities industries, indicated by the following:
- overview of authorities and regulatory bodies
  - overview of the electrical supply (transmission and distribution and generation) industry
  - overview of the Gas Industry
  - overview of the water industry
  - overview of the telecommunications industry
  - their impact on work to be undertaken and risks associated with work to be performed
- 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 2.1.25 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 2.3.16 Transmission Pipeline Construction OHS, Environmental and Cultural Legislative and Regulatory Requirements  
Evidence shall show an understanding of the practical work requirements embedded in the OHS, Environmental and Cultural Legislation and Regulations.

For OHS:

- Complete Risk Assessment forms such as Work Permits and JHA's, JSA's, JSEA's, SWM's etc Hazard Identification
- Manual handling
- Basic First Aid
- MSDS
- Understanding how to apply control measures
- Emergency Response
- Signage
- Licenses and tickets
- Working at heights
- Awareness of confined spaces
- For Environmental:
  - Weed mitigation
  - Erosion control
  - Emission laws
  - Quarantine laws
  - Licenses
  - Permits
- For Cultural and Heritage Awareness:
  - Cultural and heritage awareness tagging
  - Understanding the role of the cultural monitor
  - Uncovering of cultural/heritage artefacts
  - Understanding heritage and cultural issues
  - Understanding legislative and regulatory requirement applicable in working situations

G 2.3.22 Effective Communication on a Gas Transmission Pipeline Construction Site (between operators and ground crew).  
Evidence shall show an Knowledge of on-site pipeline

construction communication strategies including:

- hand signals,
- satellite phones
- radios

#### G 2.3.24 Operation of Transmission Pipeline Construction Plant and Equipment.

Evidence shall show an understanding the general operating parameters of the following gas industry transmission pipeline plant and equipment:

- Compressors
- Grader
- Dozer
- Excavator
- Vacuum lift
- Bending machine
- Bending machine & mandrel
- Internal line up clamp
- Tack Rig
- Side Boom
- Roller Cradles
- Trenching Equipment
- Bucket Wheel trencher
- Grit Blasting Unit
- Thermal Coil
- Padding machines
- Mitsu Bucket
- Crane (Rough Terrain)
- Crane Truck
- Flood pump
- Squeeze pump
- Drying Plant

#### G 3.1.1 Supervise labour

Evidence shall show an understanding of the requirements to supervise Gas Industry labour, indicated by the following:

- understanding of basic management techniques
- understanding relevant legislation including industrial relations, equal employment opportunity and anti discrimination
- understanding of relevant awards and certified agreements
- understanding of organisational policies and procedures
- coaching and training skills

- ability to interact with persons from a range of social, cultural and ethnic backgrounds and physical and mental abilities.

## 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 this 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 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  
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
  - 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:

|                                                      |
|------------------------------------------------------|
| <b>Range of tools/equipment/procedures/workplace</b> |
|------------------------------------------------------|

| <b>Group No</b> | <b>The minimum number of items on which skill is to be demonstrated</b> | <b>Item List</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
|-----------------|-------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| A               | All                                                                     | <p>Application of organisational management systems and procedures for occupational health and safety which includes:</p> <ul style="list-style-type: none"> <li>• identifying hazards,</li> <li>• managing risk through the incorporation of effective control measures.</li> </ul>                                                                                                                                                                                                                                                                                                                                                  |
| B               | All                                                                     | <p>Working Knowledge of the standard operating procedures and the effective and safe use of Transmission Pipeline Construction small plant and equipment including the following:</p> <ul style="list-style-type: none"> <li>• General concrete mixer</li> <li>• General trolley</li> <li>• Non pressurised pumps and hoses</li> <li>• Wheelbarrows</li> <li>• Traffic barriers</li> <li>• Extra low voltage lighting equipment</li> <li>• Hand held tools</li> <li>• Gas detectors</li> <li>• Holiday detection equipment</li> <li>• Power tools</li> <li>• Pressurised pumps and hoses</li> <li>• Hand wrapping machines</li> </ul> |
| C               | All                                                                     | <p>Ability to communicate instructions to transmission pipeline construction workforce, contractors and stakeholders, including</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |

|   |     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
|---|-----|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|   |     | communication with ground crew during operations.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| D | All | Working Knowledge of relevant legislation, regulations, codes of practice, standards, policies, procedures and permits pertaining to transmission pipeline construction operations.                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| E | All | Working knowledge of the relevant cultural heritage requirements for transmission pipeline construction operations.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| F | All | <p>Working Knowledge of relevant occupational health and safety requirements for Transmission Pipeline Construction Operations including the following:</p> <ul style="list-style-type: none"> <li>• Procedures for using dial before you dig service or its equivalent.</li> <li>• Location of other services such as utilities and rail and other transport infrastructure.</li> <li>• Effectively use MSDS sheets</li> <li>• Prepare Job Hazard Analyses</li> <li>• Implement control measures for identified Hazards</li> <li>• Hazardous area requirements adhered to</li> <li>• Correct use of PPE appropriate to Gas</li> </ul> |

|   |     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
|---|-----|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|   |     | <p>Industry</p> <ul style="list-style-type: none"> <li>• Hazard identification in pipeline construction</li> <li>• Safe manual handling techniques</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                 |
| G | All | Read and interpret transmission construction maps and drawings including the identification of key information such as symbols.                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| H | All | Ability to read, interpret and instruct subordinate staff on transmission construction procedures and other documentation.                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| I | All | Demonstrate a strategy for the coordination of an effective response to a transmission pipeline construction emergency.                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| J | All | <p>Demonstrate a strategy for protecting the environment whilst constructing a transmission pipeline that incorporates the following items:</p> <ul style="list-style-type: none"> <li>• Installation of siltation control methods such as straw and synthetic bails</li> <li>• Curb side filter rolls</li> <li>• Erosion prevention</li> <li>• Weed spread mitigation</li> <li>• Application of MSDS information</li> <li>• Noise control techniques</li> <li>• Odourant handling and testing processes</li> <li>• Excavation restoration, compaction and seeding</li> </ul> |

|   |     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
|---|-----|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|   |     | <ul style="list-style-type: none"> <li>• Applying green tagging for flora and fauna habitat</li> <li>• Application of cultural heritage awareness and protection requirements for a pipeline construction site</li> </ul>                                                                                                                                                                                                                                                                                       |
| K | All | <p>Demonstrate a strategy for dealing with an environmental incident that includes the following items:</p> <ul style="list-style-type: none"> <li>• Control and minimise the impact of an environmental incident</li> <li>• Control environment incident</li> <li>• Incident Investigation</li> <li>• Applying incident reporting and notification procedures</li> <li>• Review environmental incident</li> <li>• Make recommendations to prevent reoccurrence</li> <li>• Implement recommendations</li> </ul> |
| L | All | <p>Working knowledge of transmission pipeline construction functions which include the following:</p> <ul style="list-style-type: none"> <li>• Backfill</li> <li>• Clear and Grade</li> <li>• Ditching</li> <li>• Hydro Testing</li> <li>• Joint Coating</li> <li>• Lower and Lay</li> <li>• Mechanical (Minor Maintenance)</li> <li>• String and Bend</li> <li>• Welding</li> </ul>                                                                                                                            |

|   |                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
|---|-------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| M | All                                 | <p>Working Knowledge of the safe and efficient operation, including regulatory requirements, and maintenance schedule for large plant and equipment including the following:</p> <ul style="list-style-type: none"> <li>• Dozer</li> <li>• Excavator</li> <li>• Grader</li> <li>• Backhoe</li> <li>• Front End Loader</li> <li>• Side Boom</li> <li>• Internal Line Up Clamp</li> <li>• Tack Rig: Dozer or Skid Steer</li> <li>• Grit Blasting Rig:</li> <li>• Side Booms with Roller Cradles</li> <li>• Crane Truck: Heavy Rigid Truck</li> <li>• Rough Terrain Crane</li> </ul> <p>Note: the candidate will be expected to ensure that the equipment is operated by appropriately authorised/licensed personnel.</p> |
| N | At Least 2 of the items in the list | <p>Working Knowledge of the safe and efficient operation, including regulatory requirements, and maintenance schedule for large plant and equipment including the following:</p> <ul style="list-style-type: none"> <li>• Excavator with vacuum lift</li> <li>• Bending Machine with Mandrel</li> <li>• Rock Saw</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                            |

|  |  |                                                                                                                                                                                                                                                                                                                                      |
|--|--|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|  |  | <ul style="list-style-type: none"> <li>• Bucket Wheel Trencher</li> <li>• Over ditch Wrapping Machine</li> <li>• Thermal Coil</li> <li>• Padding Machines</li> <li>• Traffic Control</li> </ul> <p>Note: the candidate will be expected to ensure that the equipment is operated by appropriately authorised/licensed personnel.</p> |
|--|--|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

**Context of and specific resources for assessment**      **9.3)**

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 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 key competencies.

**Method of assessment**      **9.4)**

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 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.

## 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 Unit shall be demonstrated in relation to supervising the operation of transmission pipeline construction plant 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 (3)

This unit contains Employability Skills

Documentation (2)

Documentation (3)

This unit contains Employability Skills

Emergency equipment

Emergency Response Manual

Established procedures and requirements

Inspect

Legislation

OHS policies and procedures

Personal Protective Equipment

Procedures

Relevant Regulation and Procedures

Relevant Sections of Standard Operating Procedures

Responsibility

## RANGE STATEMENT

Traffic control

Work plans/schedules

This Unit includes the supervision of transmission pipeline construction that requires operators to conduct functions utilising plant as per the following table:

|                                   |                                                                                                                                                                                                                                                        |
|-----------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Backfill                          | Padding Machine<br>Excavator<br>Grader<br>Dozer<br>Front End Loader                                                                                                                                                                                    |
| Clear and Grade                   | Dozer<br>Excavator<br>Grader<br>Backhoe<br>Front End Loader                                                                                                                                                                                            |
| Ditching                          | Excavator<br>Rock Saw<br>Bucket Wheel Trencher                                                                                                                                                                                                         |
| Hydrostatic Testing               | Crane Truck<br>Side Boom<br>Rough Terrain Crane                                                                                                                                                                                                        |
| Joint Coating                     | Grit Blasting Rig Over Ditch Wrapping Machine<br>Thermal Coil                                                                                                                                                                                          |
| Lower and Lay                     | Side Boom with Roller Cradles<br>Excavator                                                                                                                                                                                                             |
| Mechanical<br>(minor maintenance) | Excavator and Vacuum Lift<br>Bending Machine and Mandrels<br>Internal Line up Clamp<br>Tack Rig<br>Side Boom<br>Roller Cradles<br>Rock Saw<br>Bucket Wheel Trencher<br>Thermal Coil<br>Over Ditch Wrapping Machine<br>Padding Machines<br>Mitsu Bucket |

|                 |                                                         |
|-----------------|---------------------------------------------------------|
| String and bend | Excavator<br>Bending Machine with Mandrels<br>Side Boom |
| Welding         | Side Boom<br>Internal Line up Clamp<br>Tack Rig         |

## Unit Sector(s)

Not applicable.

## Competency Field

**Competency Field**      **11)**

Transmission discipline.