



Australian Government

UEGNSG355 Monitor and report on cathodic protection systems

Release: 1

UEGNSG355 Monitor and report on cathodic protection systems

Modification History

Release 1. This is the first release of this unit of competency in the UEG Gas Industry Training Package.

Application

This unit involves the skills and knowledge required to monitor, test, recognise faults, and review, record and report findings and faults on cathodic protection systems. It does not include specialist cathodic protection activities.

It includes applying relevant legislation, codes of practice, regulations, standards and workplace procedures.

Work may be performed autonomously in remote locations for long periods of time and includes selecting and using the correct tools, equipment, maps, drawings and personal protection equipment (PPE) in accordance with workplace procedures.

No licensing, legislative or certification requirements apply to this unit at the time of publication.

Pre-requisite Unit

Not applicable.

Competency Field

Gas Transmission

Unit Sector

Gas Industry

Elements and Performance Criteria

ELEMENTS

Elements describe the essential outcomes.

1 Prepare to monitor and report on cathodic protection systems

PERFORMANCE CRITERIA

Performance criteria describe the performance needed to demonstrate achievement of the element.

1.1 Work schedules, job requirements, drawings, plans, maps, materials and equipment are examined to assess the extent of preparation required in accordance with

workplace procedures

- 1.2** Relevant person/s are consulted and work is prioritised and sequenced for completion within acceptable timeframes in accordance with workplace procedures
- 1.3** Work health and safety (WHS)/occupational health and safety (OHS) workplace procedures and environmental risk control measures are identified, evaluated, prioritised and followed
- 1.4** Job requirements and workplace procedures for the work are identified for all work sites and communicated to all relevant person/s
- 1.5** WHS/OHS, environmental and sustainable energy policies and procedures are obtained to ensure safe systems of work are followed in accordance with workplace procedures
- 1.6** Relevant work permit/s are obtained to coordinate the work in accordance with job requirements and workplace procedures
- 1.7** Person/s, equipment, tools and PPE required for the job are identified, scheduled, obtained and checked for correct operation and safety in accordance with workplace procedures
- 1.8** Communication issues with relevant stakeholders are resolved, as required, and work coordinated in accordance with work schedule and workplace procedures
- 1.9** Person/s participating in the work are briefed and responsibilities coordinated and authorised, as required, in accordance with workplace procedures
- 1.10** Site preparation, safety plan and work schedule are confirmed with relevant person/s in accordance with workplace procedures

2 Monitor and report on cathodic protection systems

- 2.1** WHS/OHS, risk control measures and environmental policies and procedures are followed in accordance with workplace procedures
- 2.2** First aid and other related work procedures are performed in accordance with job requirements and workplace procedures

- 2.3 Hazardous activities are conducted safely in accordance with workplace procedures and job requirements
 - 2.4 Equipment and systems are inspected and tested and faults identified in accordance with work schedule, job requirements and workplace procedures
 - 2.5 Hazard warnings and safety signs are recognised, hazards and WHS/OHS risks assessed and reported to authorised person/s for directions in accordance with workplace procedures
 - 2.6 Fault-finding and troubleshooting techniques are applied to identify any repairs or maintenance required in accordance with job requirements and workplace procedures
 - 2.7 Unplanned events and non-routine problems are identified and actioned in accordance with workplace procedures
 - 2.8 Quality and safety checks of the work are conducted in accordance with job requirements, industry standards and workplace procedures
- 3 Review, record and report on monitoring cathodic protection systems**
- 3.1 Work undertaken is checked against work schedule for conformance and anomalies and proposed solutions reported to relevant person/s in accordance with workplace procedures
 - 3.2 Incidents and injuries are reported, as required, in accordance with workplace procedures
 - 3.3 Work site is rehabilitated/cleaned up and confirmed safe in accordance with workplace procedures
 - 3.4 Tools, equipment and any surplus resources and materials are cleaned, checked and returned to storage in accordance with workplace procedures
 - 3.5 Relevant work permit/s are signed off in accordance with job requirements
 - 3.6 Work completion records, reports, documentation and as installed/modified drawing are completed, processed and the appropriate person/s notified in accordance with workplace procedures

Foundation Skills

Foundation skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Range is restricted to essential operating conditions and any other variables essential to the work environment.

Non-essential conditions may be found in the UEG Gas Industry Training Package Companion Volume Implementation Guide.

Unit Mapping Information

This unit replaces and is equivalent to UEGNSG355A Monitor and report on cathodic protection systems.

Links

Companion Volume Implementation Guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=6a6c032e-ffcb-4f3d-8063-415efbd261e8>

Assessment Requirements for UEGNSG355 Monitor and report on cathodic protection systems

Modification History

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Performance Evidence

Evidence required to demonstrate competence in this unit must be relevant to and satisfy all of the requirements of the elements and performance criteria on at least two separate occasions and include:

- applying problem-solving techniques
- applying relevant industry standards, guidelines, codes of practice and regulations
- applying relevant work health and safety (WHS)/occupational health and safety (OHS) requirements, including:
 - working safely with hazardous materials and equipment
 - hazard identification and reporting
 - implementing risk control measures
- applying sustainable energy and environmental principles and practices
- communicating effectively with others
- completing relevant records, reports and documentation
- conducting quality and safety checks
- dealing with unplanned events/situations in accordance with workplace procedures in a manner that minimises risk to personnel and equipment
- following work schedule, safety plan and job requirements
- following workplace procedures
- identifying and recognising cathodic protection system faults
- interpreting technical drawings, plans and maps
- monitoring and reporting on cathodic protection systems
- obtaining relevant resources, tools, equipment and materials to conduct the work
- preparing to monitor and report on cathodic protection systems
- rehabilitating and maintaining a clean work site
- reporting anomalies, proposed solutions, incidents and injuries
- reviewing, recording and reporting relevant information
- selecting and using correct personal protective equipment (PPE)
- working in accordance with relevant work permit/notifications
- using and maintaining relevant cathodic protection equipment, including:
 - gas detectors
 - pipe locaters.

Knowledge Evidence

Evidence required to demonstrate competence in this unit must be relevant to and satisfy all of the requirements of the elements and performance criteria and include knowledge of:

- cathodic protection principles and equipment
- effective communication techniques
- fault-finding and troubleshooting techniques
- gas industry policies and procedures
- gas industry products, processes, characteristics, components and tolerances
- gas transmission pipelines and operating parameters
- hazardous activities, including lifting, climbing, working in confined spaces and aloft, and use of power tools
- inspection and testing procedures for cathodic protection equipment and systems
- principles, procedures and requirements for cathodic protection on a gas industry pipeline
- quality and safety checks
- relevant gas industry documentation
- relevant industry standards, guidelines, codes of practice and regulations
- relevant stakeholders, including authorised persons, authorities, landowners and clients
- relevant technical drawings, diagrams, plans and maps
- relevant WHS/OHS legislated requirements, including:
 - hazards, risk assessment and control measures
 - environmental and sustainable energy principles and practices
 - hazard warnings and safety signs
 - hazardous materials
 - PPE
- relevant work permits and/or notifications
- relevant workplace documentation
- relevant workplace policies and procedures
- reporting requirements
- site preparation, safety plans, job requirements and work schedules
- techniques to identify system faults and operational conditions.

Assessment Conditions

As a minimum, assessors must satisfy applicable regulatory requirements, which include requirements in the Standards for Registered Training Organisations current at the time of assessment.

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Assessment must occur in workplace operational situations where it is appropriate to do so; where this is not appropriate, assessment must occur in simulated workplace operational

situations that replicate workplace conditions.

Assessment processes and techniques must be appropriate to the language, literacy and numeracy requirements of the work being performed and the needs of the candidate.

Resources for assessment must include access to:

- a range of relevant exercises, case studies and/or other simulations
- relevant and appropriate materials, tools, equipment and PPE currently used in industry
- applicable documentation, including workplace procedures, equipment specifications, regulations, codes of practice and operation manuals.

Links

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