



Australian Government

UEGNSG302 Conduct transmission pipeline emergency repair

Release: 1

UEGNSG302 Conduct transmission pipeline emergency repair

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 conduct a transmission pipeline emergency repair.

It includes evaluating incidents, identifying and conducting repairs and recommissioning the gas transmission pipeline under emergency situations, notifying relevant person/s of work completion, and completing documentation and reports in accordance with relevant industry standards and workplace procedures.

The skills and knowledge described in this unit must be applied within the legislative, regulatory and policy environment in which they are carried out. Organisational policies and procedures must be consulted and adhered to.

Those undertaking this unit would work independently and as part of a team, under direct and/or indirect supervision, use discretion and judgement, and take responsibility for the quality of their output.

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

Pre-requisite Unit

Not applicable

Competency Field

Gas Transmission

Unit Sector

Gas Industry

Elements and Performance Criteria

ELEMENTS

PERFORMANCE CRITERIA

Elements describe the essential Performance criteria describe the performance needed to

outcomes.

demonstrate achievement of the element.

1 Plan first on-site emergency response

- 1.1** Work health and safety (WHS)/occupational health and safety (OHS) procedures, environmental and sustainable energy measures and workplace policies and procedures are identified, obtained and applied
- 1.2** Details of incident are confirmed with supervisor, control centre and/or radio room in accordance with workplace procedures
- 1.3** Incident response is discussed with relevant person/s to establish appropriate isolation and repair methods
- 1.4** Hazards and threats to the gas pipeline and work site are identified, WHS/OHS risks are assessed and control measures are reported, prioritised, implemented and monitored in accordance with workplace procedures
- 1.5** Resources including person/s, equipment, tools and personal protective equipment (PPE) required for the work are identified, scheduled, obtained and checked for correct operation and safety
- 1.6** Supervisor and/or Site Controller, coordination centre, emergency authorities and landowners are communicated with regularly to confirm the emergency response in accordance with workplace procedures
- 1.7** Person/s participating in the work are fully briefed and responsibilities coordinated and authorised in accordance with workplace procedures
- 1.8** Site preparation, safety plan and work schedule are confirmed with relevant person/s in accordance with workplace procedures

2 Prepare to conduct transmission pipeline repair

- 2.1** Incidents are evaluated, work schedule/s, drawings, plans, specifications, job requirements and material lists are obtained, analysed and confirmed and identified repair is communicated to relevant person/s in accordance with workplace procedures
- 2.2** WHS, environmental hazard and risk control measures are monitored and adjusted as required, to ensure ongoing effectiveness in accordance with workplace procedures
- 2.3** Relevant work permit/s are obtained to access, isolate and de-isolate systems and perform work in accordance

with job requirements and workplace procedures

2.4 Equipment, tools and personal protective equipment (PPE) required for the job are identified, obtained and checked for correct operation and safety in accordance with workplace procedures

2.5 Site is prepared to minimise risk and damage to property, commerce and individuals in accordance with the work schedule and workplace procedures

2.6 Appropriate signage, barriers and warning devices are positioned in accordance with job requirements and workplace procedures

3 Conduct transmission pipeline repair

3.1 Hazard warnings and safety signs are recognised, WHS/OHS hazards and risks assessed and reported to authorised persons for directions in accordance with workplace procedures

3.2 Hazardous activities are conducted safely in accordance with regulatory requirements and workplace procedures

3.3 Pipeline repair work is conducted and monitored, relevant repair techniques are applied and amendments and modifications in the pipeline repair are undertaken in accordance with workplace procedures

3.4 Unplanned situations are responded to in accordance with workplace procedures in a manner that minimises risk to personnel and equipment

3.5 Pipeline is inspected and tested, and quality checks of work undertaken in accordance with industry standards and workplace procedures

4 Recommission gas transmission pipeline to operational conditions and complete relevant documentation

4.1 System is recommissioned to meet transmission pipeline requirements and work undertaken is checked against work schedule for conformance and anomalies reported in accordance with workplace procedures

4.2 Any incidents, accidents and injuries are reported to relevant person/s and followed up in accordance with job requirements and workplace procedure

4.3 Incident site, reports, risk control measures and permit conditions are handed over to repair coordinator or relief response person in accordance with workplace

procedures

- 4.4 Work site is rehabilitated and made safe in accordance with workplace procedures
- 4.5 Relevant work permit/s are signed off and closed and pipeline is returned to service in accordance with job requirements and workplace procedures
- 4.6 Records and drawings are updated to reflect repair work completion records and reports as installed and relevant documentation completed, processed and appropriate person/s notified in accordance with workplace procedures
- 4.7 Debriefing with relevant person/s is conducted to discuss incident response 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 is a new unit.

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 UEGNSG302 Conduct transmission pipeline emergency repair

Modification History

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

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:

- analysing evidence to determine required repairs
- applying controls for static, stray and induced electrical currents and faults
- applying environmental and sustainable energy principles and practices
- applying problem-solving techniques
- applying relevant legislation, standards, regulations and codes of practice
- applying relevant work health and safety (WHS)/occupational health and safety (OHS) requirements, including:
 - actioning and reporting accidents and incidents
 - ensuring emergency response procedures are in place
 - hazard identification and reporting
 - implementing risk control measures
 - recognising and assessing hazard warnings and safety signs
 - selecting and using correct personal protective equipment (PPE)
 - undertaking hazardous activities in a safe manner
 - working safely with hazardous materials and equipment
- assessing the incident and establishing a safe working site or zone
- communicating effectively with relevant person/s, third parties and stakeholders
- completing work and relevant documentation
- conducting quality and safety checks
- conducting transmission pipeline repairs in accordance with manufacturer, asset owners instructions and approved procedures
- cooperating with and providing input to persons investigating the incident and collecting evidence
- dealing with unplanned events and situations in accordance with workplace procedures in a manner that minimises risk to personnel and equipment
- following workplace policies and procedures
- handing over to relevant person/s
- identifying and evaluating threats to the gas pipeline and work site

- identifying leaks
- interpreting technical drawings, plans and materials lists
- obtaining relevant resources, specifications, tools, equipment and materials
- obtaining relevant work permits and authorisations
- participating in debrief
- preparing and planning for repairs of a gas transmission pipeline
- recommissioning gas transmission pipeline to operational conditions and notifying relevant person/s of completion of work
- updating records and drawings to reflect repairs.

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:

- approved pipeline repair methods and techniques, including required equipment, materials, PPE and qualified persons for activities
- communication techniques
- criteria for pressure reduction in consultation with relevant stakeholders
- controls for stray, static and induced electrical currents and faults
- effective communication and liaison techniques with relevant stakeholders, including:
 - emergency response organisations
 - emergency site controller
 - plant operators and contractors
 - property/land owners (including traditional land owners) and tenants
 - regulatory bodies
 - relevant customers and suppliers
 - workplace colleagues, supervisors and managers
- emergency site assessment
- emergency/incident control procedures for applicable enterprise/work site
- environmental and sustainable energy principles and practices
- first aid and other emergency response workplace procedures
- hazard warnings and safety signs
- hazardous activities, including lifting, climbing, working in confined spaces and aloft, and use of power tools
- hazards, risk assessments and control measures
- information relevant to pipeline repair
- maintaining records
- monitoring process of the pipeline system during repair work
- nature of a situation and preliminary assessment
- preparation process for testing and inspection of pipeline system
- preparation process of the work site for repair work
- problem-solving techniques

- process for escalation of emergency levels
- properties and characteristics of gas relevant to the pipeline system to be tested
- recommission system and restore site
- relevant legislation, standards, regulations and codes of practice, including AS 2885 Pipelines - Gas and liquid petroleum
- relevant manufacturer specifications
- relevant permits and notifications required
- relevant resources including people, tools, equipment, systems and PPE
- relevant stakeholders, including authorised persons, authorities, clients and land owners
- relevant technical drawings, plans, material lists or specifications
- relevant testing and inspection methods appropriate to the system under test
- relevant timeframes
- relevant tools and equipment to inspect and test the pipeline system
- relevant WHS/OHS legislated requirements, including:
 - environmental and sustainable energy principles and practices
 - hazards, risk assessment and control measures
- relevant workplace documentation, report and records
- site investigation and evidence gathering techniques
- site preparation, work schedules and safety plans
- site inspections
- techniques to record and interpret test data.

Assessment Conditions

Assessors must hold credentials specified within the Standards for Registered Training Organisations current at the time of assessment.

Assessment must satisfy the Principles of Assessment and Rules of Evidence and all regulatory requirements included within the Standards for Registered Training Organisations current at the time of assessment.

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 personal protective equipment (PPE) currently used in industry
- applicable documentation, including workplace procedures, equipment specifications, regulations, codes of practice and operation manuals.

Links

Companion Volume Implementation Guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=6a6c032e-ffcb-4f3d-8063-415efbd261e8>