



Australian Government

UEGNSG109 Control field pipeline operations

Release: 1

UEGNSG109 Control field pipeline operations

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 control and monitor field pipeline operations on a gas pipeline.

It includes controlling and shutting down pipeline systems in case of emergencies, monitoring and identifying faults, selecting and using relevant tools and equipment, and completing relevant documentation and reports

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

Pre-requisite Unit

Not applicable.

Competency Field

Cross Discipline Units

Unit Sector

Gas Industry

Elements and Performance Criteria

ELEMENTS

Elements describe the essential outcomes.

1 Plan control of pipeline operations

PERFORMANCE CRITERIA

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

- 1.1** Work schedule, drawings, plans, job requirements and material lists are obtained, analysed and confirmed by site inspection, as necessary, and work planned and coordinated in accordance with workplace procedures
- 1.2** Work is prioritised and sequenced for completion within acceptable timeframes following consultation with

relevant person/s in accordance with workplace procedures

- 1.3** Hazards are identified, work health and safety (WHS)/occupational health and safety (OHS) risks are assessed and control measures prioritised, implemented and monitored in accordance with workplace procedures
- 1.4** Job requirements, work permit/s, resources and workplace procedures for the work are obtained for work site/s and communicated to relevant person/s in accordance with workplace procedures
- 1.5** WHS/OHS, environmental and sustainable energy policies and procedures are obtained and applied to ensure safe systems of work are followed
- 1.6** Relevant work permit/s are obtained to coordinate and perform work in accordance with regulatory and job requirements and workplace procedures
- 1.7** Relevant resources required for the work are identified and obtained in accordance with workplace procedures
- 1.8** Clients are provided with possible solutions and options within the scope, acceptable cost and job requirements parameters
- 1.9** Communication issues with relevant stakeholders are resolved and work coordinated in accordance with work schedule and workplace procedures
- 1.10** Person/s participating in the work are briefed and responsibilities coordinated and authorised in accordance with workplace procedures
- 1.11** Site is prepared to minimise risk and damage to property, commerce and individuals in accordance with the work schedule and workplace procedures

2 Control pipeline operations

- 2.1** WHS/OHS risk control measures and environmental policies and procedures are followed in accordance with workplace procedures
- 2.2** Hazardous activities are conducted safely in accordance with regulatory requirements and workplace procedures
- 2.3** Operating conditions, pressures and temperatures of the pipeline are monitored and observed to ensure correct operating parameters are maintained in accordance with

workplace procedures

- 2.4** Alarms, codes and hazard warnings are correctly recognised and the correct response strategy is selected and applied in accordance with workplace procedures
 - 2.5** Remedial action/s are taken to address any shortfalls encountered in the work schedule in accordance with workplace procedures
 - 2.6** Work is coordinated to ensure completion in agreed timeframe and to industry standards with a minimum of waste 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, workplace procedures and community and industry standards
- 3 Shut down pipeline system and complete relevant documentation**
 - 3.1** Emergency shutdown procedures are applied to equipment failure and work undertaken in accordance with workplace procedures
 - 3.2** Accidents and injuries are reported and followed up 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** Shutdown is completed in accordance with workplace procedures
 - 3.5** Pre-shutdown checks are completed, documented and shift handover is conducted 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 Training Industry Package Companion Volume Implementation Guide.

resources must include at least seven (7) of the following:

- process control equipment
- station power supply
- heaters and heat exchanges
- station instrumentation
- drawings and schematics
- metering equipment and gas analysis equipment
- valves, actuators and flanges
- compressors and prime movers
- sumps and drains
- pipeline inspection gauges (PIGs)

monitoring systems must include at least four (4) of the following:

- use of fire and gas extinguishing and deluge systems
- emergency systems
- alarm and communication systems
- supervisory control and data acquisition (SCADA)
- prime movers and compression systems
- shutdown systems

pipeline faults must include the following:

- gas leaks
- electrical problems
- compressor or pump failure
- out-of-current inspection status
- gauge failure or hose rupture leaks
- instruments out of calibration
- non-flow of gas

Unit Mapping Information

This unit replaces and is equivalent to UEGNSG109B Control field pipeline operations.

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 UEGNSG109 Control field pipeline operations

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, performance criteria and range of conditions on at least two separate occasions and include:

- applying emergency shutdown procedures and response systems/strategies
- 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:
 - hazard identification and reporting
 - implementing risk control measures
 - selecting and using correct personal protective equipment (PPE)
 - working safely with hazardous materials and equipment
- applying sustainable energy and environmental principles and practices
- communicating with relevant stakeholders
- completing pre-shutdown checks
- 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
- interpreting technical drawings, plans and materials lists
- monitoring pipeline conditions, pressures and temperatures
- obtaining relevant work permits
- performing site inspections
- planning and controlling pipeline operations, including planning, prioritising and working in the gas industry
- rehabilitating and maintaining a clean work site
- shutting down pipeline system and completing relevant documentation
- using relevant tools, equipment and materials.

Knowledge Evidence

Evidence required to demonstrate competence in this unit must be relevant to and satisfy all of

the requirements of the elements, performance criteria and range of conditions and include knowledge of:

- characteristics of gas flows
- characteristics, operation, capabilities and limitations of relevant tools, equipment and pipeline facilities
- hazardous activities, including lifting, climbing, working in confined spaces or aloft and using power tools
- pipeline system operating parameters
- relevant alarm, codes, hazard warnings and communication systems
- relevant stakeholders, including:
 - authorised persons, authorities, clients, tenants and land owners
 - plant operators and contractors
 - workplace colleagues
 - relevant customers and suppliers
 - regulatory bodies
 - emergency response organisations
- relevant WHS/OHS, environmental legislated requirements and risk mitigation procedures, including:
 - applicable emergency response procedures
 - hazards, risk assessment and control measures
 - environmental and sustainable energy principles and practices
 - hazard warnings and safety signs
 - hazardous materials
 - PPE
- relevant industry standards, guidelines, codes of practice and regulations, including:
 - industry terminology
 - manufacturer specifications
 - workplace policies and procedures
 - workplace permits and permit to work system
 - workplace documentation
- site inspections
- strategies for dealing with unplanned events/situations, including problem-solving techniques.

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.

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.

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