



Australian Government

UEGNSG505 Operate and monitor gas infrastructure to meet nominated demand

Release: 1

UEGNSG505 Operate and monitor gas infrastructure to meet nominated demand

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 operate and monitor gas infrastructure to meet nominated demand.

It includes assessing and responding to anticipated demand of gas infrastructure, including products and services, communicating with stakeholders, and dealing with product and service issues.

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

Pre-requisite Unit

MSS402061 Use SCADA systems in operations

Competency Field

Gas Control Centre (Gas System Operations)

Unit Sector

Gas Industry

Elements and Performance Criteria

ELEMENTS

Elements describe the essential outcomes.

1 Prepare to operate gas infrastructure to meet nominated demand

PERFORMANCE CRITERIA

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

- 1.1** Relevant information, job requirements and workplace procedures are obtained and analysed to assess the extent of preparation required to plan and coordinate the work
- 1.2** Work is prioritised and sequenced for completion within

agreed timeframes following consultation with others in accordance with workplace procedures

- 1.3** Work health and safety (WHS)/occupational health and safety (OHS) hazards and risks are assessed and control measures implemented and monitored in accordance with workplace procedures
- 1.4** Job requirements and workplace procedures for the work are obtained for work sites and communicated to relevant person/s
- 1.5** Gas schedule is produced in accordance with the information collected and workplace procedures
- 1.6** Communication with relevant stakeholders is conducted and gas schedule produced based on bid and/or nomination information
- 1.7** Approval from relevant stakeholders is obtained with possible solutions and options
- 1.8** Person/s participating in the work, including plant operators and contractors, are briefed and responsibilities coordinated and authorised, as required, in accordance with workplace procedures
- 1.9** Plant and safety checks are undertaken in accordance with job requirements and workplace procedures

2 Operate and monitor gas infrastructure to meet nominated demand

- 2.1** WHS/OHS policies and procedures and safe work practices are followed to eliminate or minimise incidents and hazards
- 2.2** Work is performed and coordinated in accordance with work schedule and job requirements
- 2.3** Work schedule is monitored and adjusted to varying customer demands in accordance with requirements and workplace procedures
- 2.4** Abnormal conditions and unplanned events and situations are recognised and responded to in accordance with workplace procedures
- 2.5** Problem-solving and troubleshooting techniques are applied to identified problems in accordance with job requirements and workplace procedures

3 Complete and review gas infrastructure work

- 3.1** Work undertaken is checked against work schedule for conformance with job requirements and anomalies reported in accordance with workplace procedures
- 3.2** Work completion records, reports and documentation is 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 UEGNSG511 Operate gas infrastructure to meet nominated demand.

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 UEGNSG505 Operate and monitor gas infrastructure to meet nominated demand

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:

- actioning work requests from other parties
- analysing process functions and problems
- applying relevant customer service policies and procedures
- applying relevant procedures for equipment use
- applying relevant work health and safety (WHS)/occupational health and safety (OHS) requirements
- applying sustainable energy and environmental principles and practices
- carrying out work in regular or specified timeframe
- communicating effectively
- conducting plant safety checks
- dealing with unplanned events and situations in accordance with workplace procedures in a manner that minimises risk to personnel and equipment
- locating Control Centres or other places where communication processes occur
- locating, interpreting and applying relevant information, including:
 - alarm listing
 - customer demand and specifications
 - operating limits
 - piping and instrumentation diagram (P&ID)
 - process flow diagrams (PFD)
- maintaining relevant workplace records
- operating gas infrastructure to meet nominated demand
- performing work under or without supervision
- planning to operate gas infrastructure to meet nominated demand
- producing gas schedule
- producing system generated reports, including:
 - customer specific
 - daily and weekly
 - trending

- using appropriate SCADA language
- using strategies for dealing with difficult situations and a variety of stakeholders, including:
 - relevant customers and suppliers
 - workplace colleagues
 - workplace managers.

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:

- application of applicable operating requirements of commercial agreements and contractual requirements in the gas industry
- excavation machinery and their effects used near pipelines
- gas industry facilities and infrastructure, including:
 - compression facilities
 - gas processing facilities including coal seam methane plants
 - liquified petroleum gas (LPG) processing facilities
 - odourisation facilities
 - pipeline locations
 - regulation and metering facilities
 - scraper stations and pigging facilities
- gas industry WHS/OHS legislated requirements
- gas industry production, transmission and distribution areas
- gas industry products, processes and characteristics
- gas industry reports and documentation
- location of Control Centres and other places where communication processes occur
- operating principles associated with pipelines and other gas infrastructure, including:
 - pigging techniques and their roles for pipeline maintenance
 - pipeline specifications
 - pipeline threats, identification and control
 - relevant manufacturer specifications
 - relevant pipeline legislation, regulatory and advisory standards and codes of practice
 - relevant safe work method statements (SWMS), job safety assessments and risk mitigation processes
- relevance of coating and cathodic corrosion protection
- relevant workplace documentation
- relevant workplace policies and procedures
- stakeholders
- SCADA trends, alarms, set points and security levels.

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

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