UEGNSG356Y Monitor and operate flow control, pressure measuring and regulating devices for gas transmission

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 and operate complex gas flow control, pressure measuring and regulating devices to control gas supply in gas transmission systems in accordance with relevant legislation, codes of practice, regulations and workplace procedures.

It includes monitoring complex gas flow control devices and equipment by inspecting, testing and controlling flow and pressure measuring device. It also includes recording and reporting regulation of the gas transmission system, equipment, organisational and statutory requirements.

The application of the skills and knowledge described in this unit may require a licence/registration to practice in the workplace.

Other conditions may apply under state and territory legislative and regulatory licensing requirements which must be confirmed prior to commencing this unit.

Pre-requisite Unit

UEGNSG006 Use a portable gas detector to locate escape

Competency Field

Transmission Discipline

Unit Sector

Gas Industry

Elements and Performance Criteria

ELEMENTS	PERFORMANCE CRITERIA
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.

1	**Prepare to monitor complex gas flow control device and equipment**	**1.1** Work requirements for monitoring and operating complex gas flow control, pressure measuring and regulating device/s are interpreted from plan/s, specifications and instructions
		1.2 Relevant gas supply monitoring requirements and workplace procedures for work are communicated to relevant person/s
		1.3 Work health and safety (WHS)/occupational health and safety (OHS), environmental and sustainable energy workplace policies and procedures related to gas supply monitoring and operating of complex flow controls are obtained and confirmed
		1.4 Work activities are prioritised and sequenced following consultation with relevant person/s for completion within acceptable timeframes and in accordance with workplace procedures
		1.5 WHS/OHS and environmental risk control measures for identified hazards are prioritised, implemented and monitored
		1.6 Relevant work permits are obtained to access, isolate/de-energise systems and perform work in accordance with job requirements and workplace procedures
		1.7 Resources, appropriately licensed person/s, equipment, tools and personal protective equipment (PPE) required for the work are identified, scheduled and obtained in safe working order
		1.8 Liaison and communication with authorised person/s, authorities, clients and land owners are undertaken to resolve gas supply issues and work activities monitored in accordance with workplace procedures
		1.9 Person/s participating in work activities are fully briefed and respective responsibilities confirmed, as required, in accordance with workplace procedures
		1.10 Third-party issues are referred to appropriate person/s in accordance with workplace procedures
		1.11 Site preparation, safety plan and work schedule are confirmed in accordance with workplace procedures

2	**Monitor complex gas flow control device and equipment** sys**tem performance**	**2.1** WHS/OHS and environmental workplace policies, procedures and safe work practices are followed to eliminate or minimise risk of harm from incidents and hazards
		2.2 Information on gas supply device and equipment performance is collected and reported in accordance with organisational requirements
		2.3 Dealings with customers are consistent with workplace procedures and specific needs of customer/s are identified and considered in targeting client service
		2.4 Routine inspections of system are scheduled and monitored in accordance with the work schedule and workplace procedures
		2.5 Hazard warnings and safety signs are recognised and hazards are identified, assessed and WHS/OHS risks are reported to the authorised person/s for directions in accordance with workplace procedures
		2.6 System performance data and usage is collected, analysed and reported with any unplanned events from monitoring operation of complex gas flow control in accordance with workplace procedures
		2.7 Samples are taken in accordance with workplace procedures and known solutions to a variety of problems are applied
		2.8 Ongoing checks of quality of work are undertaken in accordance with given instructions and workplace procedures
3	**Control and adjust gas flow and complete records and reports**	**3.1** Gas flow and overflow regulating systems are inspected and adjusted to meet demand and customer requirements
		3.2 Incidents and injuries are reported in accordance with workplace procedures, as required
		3.3 Gas flow and diversion/s are determined to facilitate repair or emergency activities in accordance with organisational requirements

3.4 Process faults and operational conditions of the gas transmission system are identified, addressed and reported in accordance with organisational requirements

3.5 Work site is cleaned up and confirmed safe in accordance with workplace procedures

3.6 Tools, equipment and any surplus resources and materials are cleaned, checked and returned to storage in accordance with workplace procedures

3.7 Relevant work permit/s are signed off in accordance with job requirements

3.8 Work completion records, reports and documentation are finalised and processed and appropriate person/s notified

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 Companion Volume Implementation Guide.

Unit Mapping Information

This unit replaces and is equivalent to UEGNSG356 Monitor and operate flow control, pressure measuring and regulating devices for gas transmission.

Links

UEG - Gas Industry Training Package Companion Volume Implementation Guide at: [sector webpage link here]

Assessment Requirements for UEGNSG356Y Monitor and operate flow control, pressure measuring and regulating devices for gas transmission

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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 relevant work health and safety (WHS)/occupational health and safety (OHS) requirements, including:
  - workplace procedures and practices
  - using risk control measures
- applying sustainable energy principles and practices
- completing records and reports
- controlling and adjusting gas supply flow
- dealing effectively with unplanned events in accordance with workplace procedures in a manner that minimises risk to personnel and equipment
- monitoring and operating of complex gas flow control, measuring and regulating devices for gas pressure and flow control in gas transmission systems in accordance with relevant legislation, code of practice, regulations and workplace procedures
- monitoring gas supply system performance.

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:

- differences in pipeline pressures, including high/low flow pressures
- gas conditioning and monitoring equipment, including principles of operation, fault finding, adjustments, replacement and minor repairs
- gas facilities/station venting, purging and pressurisation operations
- gas flow measurement equipment types
- gas pressure control equipment, including principles of operation
- gas transmission pipeline flow control, pressure, measuring and regulating devices
- gas transmission systems relevant legislation, codes of practice and regulations

- monitoring and operating complex flow control, measuring and regulating devices on gas transmission systems
- principles of control systems used in monitoring and control of applicable organisational gas infrastructure
- relevant manufacturer specifications, manuals and procedures
- relevant safe work method statements (SWMS)/job safety assessments or risk mitigation processes including safe working practices
- relevant WHS/OHS legislated requirements
- relevant workplace documentation, records and reports
- relevant workplace policies and procedures.

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, facilities equipment and personal protective equipment (PPE) currently used in industry
- resources used should reflect current industry practices and technologies in relation to operating flow control, pressure measuring and regulating devices for gas transmission
- applicable documentation, including workplace procedures, equipment specifications, regulations, codes of practice and operation manuals.

Links

UEG - Gas Industry Training Package Companion Volume Implementation Guide at: [sector webpage link here]