Australian Government

UEGNSG806 Maintain SCADA controlled flow and pressure equipment and electronic gas measurement equipment

Release: 1

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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 maintain supervisory control and data acquisition system (SCADA) controlled gas distribution and transmission station facilities in accordance with relevant legislation, codes of practice, regulations and workplace procedures.

It includes gas station maintenance of equipment, including remotely operated and controlled valves, air loaded and SCADA controlled regulators, Coriolis, and ultrasonic and electronic meters.

This unit applies to the following types of gas stations, subject to work health and safety (WHS)/occupational health and safety (OHS) and duty of care requirements being met for the workplace:

- compressor stations
- custody transfer stations
- inlets and city gates
- scraper stations
- gas storage facilities
- SCADA controlled main line valves

The skills and knowledge described in this unit require a licence or permit to practice in the workplace where work is carried out on electrical installations which are designed to operate at voltages greater than 50 V a.c. or 120 V d.c.

Competency development activities in this unit are subject to regulations directly related to licencing.

Additional and/or other conditions may apply in some jurisdictions subject to regulations related to electrical work. Practice in the workplace and during training is also subject to WHS/OHS regulations.

Pre-requisite Unit

UEGNSG006 Use a portable gas detector to locate escape

Competency Field

Pressure Control 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 SCADA controlled gas flow and pressure equipment and **electronic gas measurement equipment**	**1.1** WHS/OHS and environmental control measures for the gas station site are identified, obtained and applied
	1.2 Work requirements are interpreted from plans, specifications and instructions
	1.3 Relevant job requirements and workplace procedures for work activities are discussed with relevant person/s to determine and confirm work schedule and respective responsibilities
	1.4 WHS/OHS, environmental and sustainable energy policies and workplace procedures are determined and confirmed
	1.5 Hazards are identified, WHS/OHS and risks are assessed, and control measures are prioritised, implemented and monitored in accordance with workplace procedures
	1.6 Scope of responsibility under the relevant work permits and/or relevant notification is determined and confirmed to access, isolate/de-energise systems and perform work in accordance with job requirements and workplace procedures
	1.7 Equipment, tools and personal protective equipment (PPE) needed to carry out work activities are identified, scheduled, obtained and checked for correct operation

		and safety
	1.8	Appropriate person/s are consulted to ensure work activity is coordinated effectively with person/s involved
	1.9	Materials, plans, diagrams, drawings and resources required for work are confirmed, scheduled and obtained in accordance with workplace procedures
	1.10	Relevant responsibilities associated with first aid and related workplace safety procedures at the work site are identified, checked and confirmed
	1.11	Third-party issues are referred to appropriate person/s in accordance with workplace procedures
	1.12	Site preparation, safety plan and work schedule are confirmed in accordance with workplace procedures
2 Maintain SCADA controlled gas flow and pressure equipment and **electronic gas measurement equipment**	**2.1**	WHS/OHS risk control measures, schedule of work and workplace procedures for carrying out work activities are followed
	2.2	Gas detectors are used to determine work site gas concentration levels and to locate and pinpoint any escaping gas, and supervisor advised immediately if site is unsafe in accordance with workplace procedures
	2.3	Appropriate materials, tools, equipment and measuring devices are selected and used safely in accordance with workplace procedures
	2.4	Hazardous activities are conducted safely in accordance with given instructions and to requirements
	2.5	Work is carried out efficiently, to required industry standard, without waste of materials or damage to apparatus, circuits, and the surrounding environment or services using sustainable energy principles
	2.6	Hazard warnings and safety signs are identified and assessed as part of WHS/OHS risks and incident control measures and are reported to authorised person/s for directions in accordance with workplace procedures
	2.7	Electrical isolations are scheduled, and local/remote control actuated and communicated in accordance with

	workplace procedures
	2.8 Data on system performance, usage and unplanned events is collected, reviewed and reported in accordance with workplace procedures
	2.9 Gas station venting and purging operations are undertaken in accordance with workplace procedures
	2.10 Gas flow regulator and meter runs, and components are set up and operated, and system is vented, purged and pressurised in accordance with workplace procedures
	2.11 Process variables and set points are taken and required adjustments and repairs are carried out in accordance with workplace procedures
	2.12 Actuators are isolated/ de-energised in accordance with manufactures instructions and workplace company procedures
	2.13 Procedures for referring non-routine events to the authorised person/s for directions are followed
	2.14 Routine work activity quality checks are carried out in accordance with workplace instructions
3 Complete SCADA maintenance work and relevant documentation	**3.1** WHS/OHS risk control work completion measures and procedures are followed
	3.2 Work site is tidied and made safe in accordance with workplace procedures
	3.3 Tools, equipment and surplus resources and materials are cleaned, checked and securely stored
	3.4 Appropriate person/s are notified of work completion in accordance with workplace procedures
	3.5 Work completion documentation is completed accurately and provided to appropriate person/s 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.

equipment must include the following:	• remotely operated valves, types: double block and bleed • remote telemetry units (RTU's) and controllers • actuators: pneumatic, electric and I To P convertors • pressure controllers • meters: Coriolis and ultrasonic Note: Fault finding is limited to the component level.
constants and variables must include the following:	• monitoring, adjusting and controlling • regulation of flow and pressure • gas measurement • recording and reporting • regulation of the system • equipment • organisational and statutory requirements
third-party issues referred to appropriate person/s must include the following:	• low voltage electrical work

Unit Mapping Information

This unit replaces and is equivalent to UEGNSG806A Maintain SCADA controlled flow and pressure equipment and electronic gas measurement equipment.

Links

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