



Australian Government

UEGNSG024 Monitor and control the transfer of bulk industrial gas

Release: 1

UEGNSG024 Monitor and control the transfer of bulk industrial gas

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 safely transfer industrial gas into or out of bulk storage at an industrial gas terminal or refinery by pipelines and hoses. It includes ship to tank, tank to tank, tank to tanker and tank to distribution network.

It also includes following workplace procedures to correctly and safely carry out the work using appropriate materials, tools and equipment, applying relevant emergency response procedures and completing relevant documentation.

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

Pre-requisite Unit

Not applicable.

Competency Field

Gaseous Fuel Vessels

Unit Sector

Gas Industry

Elements and Performance Criteria

ELEMENTS

Elements describe the essential outcomes.

1 Plan and prepare for the bulk transfer of industrial gas

PERFORMANCE CRITERIA

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

1.1 Workplace safety, environmental and sustainable energy practices for the site are identified, obtained and understood

- 1.2 Job requirements are obtained and interpreted from plans, specifications and instructions
 - 1.3 Relevant job requirements and workplace procedures for work activities are discussed with relevant person/s, including third parties, to determine and confirm work schedule and respective responsibilities
 - 1.4 Hazards are identified, workplace safety and environmental risks are assessed, and control measures are prioritised, implemented and monitored in accordance with workplace procedures
 - 1.5 Equipment, tools and personal protective equipment (PPE) needed to carry out work activities are identified, obtained and checked for correct operation and safety in accordance with workplace procedures and manufacturer instructions
 - 1.6 Materials, plans, diagrams, drawings and resources required for work are confirmed and obtained in accordance with workplace procedures
- 2 Conduct bulk transfer of industrial gas**
 - 2.1 Workplace safety and environmental risk control measures, schedule of work and workplace procedures for carrying out work are followed
 - 2.2 Appropriate materials, tools and equipment are selected and used safely in accordance with manufacturer instructions and workplace procedures
 - 2.3 Bulk transfer is monitored and controlled to ensure completion in agreed timeframes with a minimum of waste and damage to the surrounding environment or services and using sustainable energy principles
 - 2.4 Monitoring the transfer of industrial gas is carried out in accordance with the work schedule and workplace procedures
 - 2.5 Work is completed within agreed timeframe and to industry standards in accordance with job requirements and workplace procedures
 - 2.6 Hazardous activities are conducted safely in accordance with regulatory requirements and workplace procedures
 - 2.7 Faults and operational conditions of the components are identified, repaired or replaced, and reported in

- accordance with organisational job requirements
- 2.8** Unplanned events and non-routine problems are identified and actioned in accordance with workplace procedures
- 3 Complete work and relevant documentation**
- 3.1** Workplace safety risk control measures for work completion are followed
- 3.2** Quality and safety checks of the work are conducted in accordance with job requirements, workplace procedures and community and industry standards
- 3.3** Worksite is cleaned, reinstated and made safe in accordance with workplace procedures
- 3.4** Tools, equipment, and any surplus resources/materials are cleaned, checked and securely stored in accordance with workplace procedures
- 3.5** Incidents are reported and followed up as required in accordance with workplace procedures
- 3.6** Relevant person/s is notified of work completion in accordance with workplace procedures
- 3.7** Emergency shutdown procedures are applied in the event of serious equipment failure or operational parameters being exceeded in accordance with workplace procedures
- 3.8** Work completion documentation is completed accurately and provided to relevant 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.

Unit Mapping Information

This unit supersedes and is equivalent to UEGNSG617 Monitor and control the transfer of bulk LPG.

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 UEGNSG024 Monitor and control the transfer of bulk industrial gas

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:

- applying relevant workplace safety requirements, including:
 - working safely with hazardous materials and equipment
 - identifying and reporting hazards
 - implementing risk control measures
 - selecting and using correct personal protective equipment (PPE)
- applying relevant industry standards, guidelines, codes of practice and regulations
- applying sustainable energy and environmental principles and practices
- communicating with relevant stakeholders
- completing work and relevant documentation
- conducting quality and safety checks
- conducting site inspections
- dealing with unplanned events/situations in accordance with workplace procedures in a manner that minimises risk to personnel and equipment
- following workplace procedures
- identifying and reporting anomalies
- maintaining a clean worksite
- monitoring and controlling the industrial gas transfer
- obtaining and complying with relevant work permits
- planning and preparing for the bulk transfer of industrial gas
- using relevant equipment.

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:

- fault-finding and troubleshooting techniques
- relevant stakeholders, including authorised persons, authorities, clients, tenants and landowners

- hazardous activities, including lifting, climbing, working in confined spaces and aloft, and use of power tools
- manufacturer or 'as built' specifications
- relevant legislation, regulations, codes, standards and policies
- relevant workplace safety requirements, including:
 - legislated work health and safety (WHS)/occupational health and safety (OHS) requirements
 - legislated industry/technical specific requirements
 - workplace safety procedures
 - manufacturer requirements
- industrial gas bulk storage vessels, including:
 - industrial gas, characteristics and properties, including but not limited to propane, butane, propylene, nitrogen, oxygen, carbon dioxide, argon, hydrogen, helium and acetylene
 - types, construction, size, valves, labelling and safety data sheets (SDS)
 - inspection procedures
- industrial gas bulk transfer, including:
 - requirements, applications, methods and procedures
 - equipment/tools
 - types
 - compressors, pumps, pipes and hoses
 - gas alarm and communication equipment
 - ignition prevention/control
 - leak testing requirements
- oral and written communication techniques
- problem-solving techniques
- quality and safety checks
- relevant safe work method statements (SWMS)/job safety analysis (JSA) or risk mitigation processes
- relevant workplace documentation, forms and reports
- relevant workplace policies and procedures
- site inspections
- workplace quality requirements and specifications.

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 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.

Links

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