



Australian Government

UEGNSG014 Control industrial gas storage/processing operations

Release: 1

UEGNSG014 Control industrial gas storage/processing 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 industrial gas storage/processing operations. It includes planning, monitoring and controlling industrial gas storage operations and shutting down operations in the event of an emergency.

It also includes using relevant resources and equipment, identifying faults and completing relevant reports and documentation.

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

Pre-requisite Unit

Not applicable.

Competency Field

Gaseous Fuels Vessels

Unit Sector

Elements and Performance Criteria

ELEMENTS

Elements describe the essential outcomes.

1 Plan industrial gas storage operations

PERFORMANCE CRITERIA

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

- 1.1** Work schedule/s, drawings, plans, job requirements and material lists are obtained, analysed and site inspection conducted, as required, to determine the preparation work required for planning and coordination
- 1.2** Relevant person/s is consulted, and work is prioritised and sequenced for completion within acceptable timeframes and to industry standards in accordance with workplace procedures

- 1.3 Hazards and workplace safety risks are identified and prioritised, and risk control measures implemented and monitored
 - 1.4 Workplace safety and environmental policies and procedures related to the work are obtained to ensure safe systems of work are followed in accordance with workplace procedures
 - 1.5 Relevant work permit/s is obtained to coordinate the work in accordance with job/regulatory requirements and workplace procedures
 - 1.6 Appropriate equipment, tools and personal protective equipment (PPE) required for the job are identified, scheduled, obtained and checked for correct operation and safety in accordance with workplace procedures
 - 1.7 Communication issues with relevant stakeholders are resolved and work coordinated in accordance with work schedule and workplace procedures
 - 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 Site is prepared to minimise risk and damage to property, commerce and individuals in accordance with the work schedule and workplace procedures
 - 2 **Control storage/processing operations**
 - 2.1 Workplace safety risk control measures and policies and procedures are followed in accordance with workplace procedures
 - 2.2 Systems isolation is performed in accordance with requirements and workplace procedures
 - 2.3 Industrial gas storage/processing operations are initiated ensuring completion in agreed timeframes with a minimum of waste and damage to the surrounding environment or services and using sustainable energy principles
 - 2.4 Operation of storage or processing system is monitored to ensure safety and efficiency and system operations communicated to relevant person/s and other work areas in accordance with workplace procedures

- 2.5 Industrial gas storage processing operation controls are adjusted and monitored in accordance with work schedule, job requirements and workplace procedures
 - 2.6 Alarm codes and other hazard warnings are correctly recognised, and workplace safety risks and control measures monitored, actioned and appropriate authorities consulted in accordance with requirements and workplace procedures
 - 2.7 Work schedule is monitored, and remedial action taken to address any shortfalls encountered in accordance with requirements and/or workplace procedures
 - 2.8 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
 - 2.9 Fault-finding and troubleshooting techniques are applied to problems encountered when controlling industrial gas storage/processing operations in accordance with workplace procedures
 - 2.10 Quality and safety checks of the work are conducted in accordance with job requirements, workplace procedures and community and industry standards
- 3 **Shut down operations and complete relevant documentation**
 - 3.1 Work undertaken is checked against work schedule for conformance and anomalies and proposed solutions reported to relevant person/s in accordance with workplace procedures
 - 3.2 Accidents and injuries are reported in accordance with requirements and workplace procedures
 - 3.3 Emergency shutdown procedures are applied in the event of equipment faults/failure or operational parameters being exceeded
 - 3.4 Relevant work permit/s is signed off and system returned to service and communicated to clients in accordance with requirements and workplace procedures
 - 3.5 Work completion records, reports, documentation and as installed/modified drawing/s are completed, processed and 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

New unit. No equivalent unit.

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 UEGNSG014 Control industrial gas storage/processing operations

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 industry standards, guidelines, codes of practice and regulations
- applying relevant workplace safety requirements, including:
 - applying emergency response procedures
 - applying sustainable energy and environmental principles and practices
 - conducting hazard identification and reporting
 - implementing risk control measures
 - selecting and using correct personal protective equipment (PPE)
 - selecting and using relevant equipment in an industrial gas environment
 - working safely with hazardous materials and equipment
- communicating in an industrial gas environment
- communicating with relevant person/s
- completing relevant reports and documentation
- controlling storage operations
- dealing with unplanned events
- following workplace procedures
- interpreting relevant drawings, plans and material lists
- isolating systems
- obtaining and complying with relevant work permits
- planning control of industrial gas storage operations
- recording relevant information
- recording and reporting corrective actions in an industrial gas environment
- recording industrial gas information
- shutting down operations
- working safely in an industrial gas environment.

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:

- correct use of plant and equipment in an industrial gas environment, including:
 - transfer equipment, including compressors or pumps
 - transfer methods for pipes and hoses
 - selection, testing and set-up processes for transfer equipment
 - making analytical judgements for appropriate adjustments to plant and equipment
 - test equipment and its uses
 - operation, testing and inspecting equipment that includes pressure vessels and associated fitting
 - manufacturer specifications to make adjustments to parts where appropriate
 - how to select appropriate equipment for tasks associated with industrial gas
 - operating gas analysis equipment
 - operating gas alarm and communication equipment
- gas industry drawings, plans and material lists
- gas industry products, processes and characteristics
- industrial gas storage
- industrial gas, characteristics and properties, including but not limited to propane, butane, propylene, nitrogen, oxygen, carbon dioxide, argon, hydrogen, helium and acetylene
- industrial gas production process, including:
 - identifying and reporting problems associated with transfer processes and procedures
 - processing, handling and storage operations for industrial gas
- how to mix/blend the properties of industrial gas
- permit to work systems for an industrial gas environment
- properties of industrial gas
- properties of static electricity and how to manage it in an industrial gas environment
- relevant manufacturer specifications
- relevant safe work method statements (SWMS)/job safety analysis (JSA) or risk mitigation processes
- relevant stakeholders, including authorised persons, authorities, clients, landowners and tenants
- 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
- relevant workplace documentation
- relevant workplace policies and procedures
- site inspections
- technical drawings for the industrial gas environment
- working safely in an industrial gas environment.

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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