
UEGNSG986Y Inject gas to underground storage

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 inject gas into an underground storage in accordance with relevant regulations, codes of practice and workplace procedures.

It includes following procedures to correctly and safely carry out the work using appropriate materials, tools and equipment.

This unit of competency can be applicable to those working in the field or a control room environment.

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

Not applicable

Competency Field

Transmission

Unit Sector

Gas Industry

Elements and Performance Criteria

ELEMENTS

Elements describe the essential outcomes.

PERFORMANCE CRITERIA

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

1 Prepare to inject gas into underground storage

- 1.1** Job requirements and workplace procedures for the work are obtained and discussed with relevant person/s to establish and confirm the work schedule
- 1.2** Work health and safety (WHS)/occupational health and safety (OHS), environmental and sustainable energy policies and procedures for the work are obtained and applied
- 1.3** Hazards and WHS/OHS risks are identified and prioritised and control measures implemented and monitored
- 1.4** Equipment, tools and personal protective equipment (PPE) required for the job are obtained and checked for correct operation and safety in accordance with workplace procedures
- 1.5** Work area is prepared to minimise risk and damage to property, commerce and individuals in accordance with job instructions, work schedule and workplace procedures
- 1.6** Pre-start checks are undertaken in accordance with regulatory requirements and workplace procedures

2 Inject gas into underground storage

- 2.1** WHS/OHS risk control measures and policies and procedures are followed in accordance with workplace procedures
- 2.2** Hazardous activities are performed safely in accordance with job instructions, regulatory requirements and workplace procedures
- 2.3** Wells and equipment performance are monitored for start-up in accordance with plant operating specifications and parameters
- 2.4** Gas is injected into the underground storage correctly and safely according to job requirements, industry standards and workplace procedures
- 2.5** Potential hazards and safety risks are identified and reported to authorised person/s for directions in accordance with workplace procedures

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| | 2.6 | Unplanned events are dealt with or referred to authorised person/s for directions in accordance with level of responsibility and workplace procedures |
| | 2.7 | Quality and safety checks of the work are conducted in accordance with job requirements, industry standards and workplace procedures |
| | 2.7 | Emergency shutdowns are responded to in accordance with workplace procedures |
| 3. Complete work and relevant documentation | 3.1 | Equipment shutdown in a controlled manner is performed in accordance with workplace procedures |
| | 3.2 | Work area is cleaned up and made safe in accordance with job instructions and workplace procedures |
| | 3.3 | Tools, equipment and any surplus resources and materials are cleaned, checked and returned to storage in accordance with workplace procedures |
| | 3.4 | Relevant person/s are notified of work completion in accordance with workplace procedures |
| | 3.5 | Work completion records and report forms are completed in accordance with job instructions and 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 is a new unit.

Links

Companion Volume Implementation Guides are found in VETNet - LINK POPULATED ON PUBLICATION

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Assessment Requirements for UEGNSG986Y Inject gas to storage facility

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 organisational health safety and environment requirements
- applying relevant work health and safety (WHS)/occupational health and safety (OHS) requirements, including:
 - emergency procedures and response actions
 - hazard identification and reporting
 - implementing risk control measures
 - selecting and using correct personal protective equipment (PPE)
- communicating with relevant person/s
- completing work and relevant documentation
- conducting quality and safety checks
- isolating/deisolating equipment
- dealing with unplanned events/situations in accordance with workplace procedures in a manner that minimises risk to personnel and equipment
- following workplace procedures, including:
 - gas injection procedures
 - plant inlet procedures
 - gas compression procedures
 - gas temperature controlling procedures
 - gas pressurisation and balancing flow procedures
 - controlled and emergency shutdown procedures
- injecting gas into the underground storage correctly and safely according to workplace procedures and industry standards
- obtaining and using relevant equipment and tools, including:
 - testing equipment
 - gas sampling equipment
 - fittings
 - hand tools
 - leak detection

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- compressors

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:

- gas characteristics and hazards
- organisational health safety and environment requirements
- plant and equipment in an underground storage facility environment, including:
 - gas sampling equipment
 - fittings
 - hand tools
 - leak detection
 - separators
 - dehydrators
 - heat exchangers
 - prime movers
- gas characteristics
- transmission pipeline operating parameters and requirements
- plant operating specifications and parameters, including:
 - flows
 - temperatures
 - pressures
- gas industry drawings, plans and material lists
- relevant permit to work systems
- workplace procedures, including:
 - plant inlet procedures
 - gas compression procedures
 - gas temperature controlling procedures
 - gas pressurisation procedures
 - controlled and emergency shutdown procedures
- relevant manufacturer specifications
- relevant safe work method statements (SWMS)/job safety assessments or risk mitigation processes
- chemicals in the workplace, including:
 - gas chemicals used for gas treatment
 - hazardous substances and dangerous goods
- relevant stakeholders, including:
 - authorised persons
 - authorities

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- permit holders
 - emergency personnel
 - relevant WHS/OHS legislated requirements, including:
 - applicable emergency equipment and procedures
 - hazards, risk assessment and control measures
 - environmental and sustainable energy principles and practices
 - relevant workplace documentation
 - relevant workplace policies and procedures
 - down hole well configuration, including:
 - underground storage characteristics
 - well surface casing
 - intermediate casing
 - production casing
 - production tubing
 - formation characteristics

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

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