



Australian Government

UEGNSG028 Perform scheduled maintenance on gas processing or storage facilities and equipment

Release: 1

UEGNSG028 Perform scheduled maintenance on gas processing or storage facilities and equipment

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 carry out scheduled maintenance, and repair and replace parts on industrial gas processing or storage facilities and equipment.

It includes repairing/replacing pressure vessels, valves and fittings, transfer equipment, pumps, compressors, transfer hoses, pipework and seals.

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

This unit only applies to industrial gas processing or storage facilities and equipment and not consumer plant or equipment.

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

Pre-requisite Unit

Not applicable.

Competency Field

Industrial Gas Storage, Handling and Distribution

Unit Sector

Gas Industry

Elements and Performance Criteria

ELEMENTS

Elements describe the essential outcomes.

1 Prepare for maintenance

PERFORMANCE CRITERIA

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

1.1 Workplace safety, environmental and sustainable

and repair activities	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	Scope of responsibility under the relevant job requirements, including all work permits and/or relevant notifications, is determined and confirmed to access the services and perform work in accordance with job requirements and workplace procedures
1.6	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
1.7	Materials, plans, diagrams, drawings and resources required for work are confirmed and obtained in accordance with workplace procedures
2 Perform scheduled maintenance and repairs	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 Work is completed within agreed timeframe and to industry standards in accordance with job requirements and workplace procedures
	2.4 Hazardous activities are conducted safely in accordance with regulatory requirements and workplace procedures
	2.5 Alarms, codes and hazard warnings are correctly recognised, and the correct response strategy is selected

- and applied in accordance with workplace procedures
- 2.6 Faults and operational conditions of the components are identified, repaired or replaced and reported in accordance with organisational job requirements
 - 2.7 Unplanned events are referred to the relevant person/s for directions in accordance with workplace procedures
 - 2.8 Maintenance is performed and parts repaired or replaced by applying problem-solving techniques in accordance with workplace procedures and job requirements
- 3 Complete scheduled maintenance 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 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 replaces but is not equivalent to UEGNSG619 Perform scheduled maintenance on gas processing or storage facilities and equipment.

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 UEGNSG028 Perform scheduled maintenance on gas processing or storage facilities and equipment

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:
 - identifying and reporting hazards
 - implementing risk control measures
 - selecting and using correct personal protective equipment (PPE)
 - working safely with hazardous materials and equipment
- adjusting calibration and testing equipment
- applying problem-solving techniques
- applying sustainable energy and environmental principles and practices
- communicating with relevant stakeholders
- completing scheduled maintenance and relevant documentation
- conducting briefings
- dealing with unplanned events/situations in accordance with workplace procedures in a manner that minimises risk to personnel and equipment
- following manufacturer specifications
- following work orders/work schedules
- identifying required repairs/maintenance
- isolating, purging, depressurising, tagging and locking out facilities and equipment
- obtaining and complying with relevant work permits
- obtaining relevant tools, testing and measuring instruments, drawings, plans and materials
- performing scheduled maintenance and repairs
- positioning road signs, barriers and warning devices
- preparing for maintenance and repair activities
- rehabilitating worksite
- returning equipment to service, including de-isolation and tag-out.

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:

- relevant industry standards, guidelines, codes of practice and regulations
- 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
- work orders and work schedules
- relevant work permits
- industrial gas bulk transfer equipment, including:
 - requirements, applications, methods and procedures
 - equipment/tools
 - types, selection, manufacturer specifications/instructions, testing, set-up and adjustment
 - compressors and pumps
 - pipes and hoses
- industrial gas processing or storage facility and equipment maintenance
- relevant workplace policies and procedures
- industrial gas, characteristics and properties, including but not limited to propane, butane, propylene, nitrogen, oxygen, carbon dioxide, argon, hydrogen, helium and acetylene
- industrial gas storage/pressure vessels, including:
 - types, construction, size, valves and labelling
 - testing and inspection procedures
- industrial gas processing equipment requirements, applications, methods and procedures, including:
 - mix/blend properties and specifications
 - equipment/tools
 - types, selection, manufacturer specifications/instructions, testing and set-up
 - analytical judgements for appropriate adjustments to plant and equipment
 - variations and irregularities identification
 - gas analysis equipment
 - safety
 - gas alarm and communication equipment
 - ignition prevention/control
 - leak testing requirements, types, procedures and required equipment/tools
- PPE types, application, checking, maintenance and storage
- scheduled maintenance
- fault identification

- repair and replacement of components and parts
- organisational policies, quality requirements, specifications, forms and reports for work activities
- hazardous activities, including:
 - lifting, climbing, working in confined spaces or aloft, and use of power tools
- inspecting and testing procedures
- problem-solving techniques
- relevant industry standards, guidelines, codes of practice and regulations
- relevant manufacturer specifications
- relevant safe work method statements (SWMS)/job safety analysis (JSA) or risk mitigation processes
- relevant technical drawings, plans, material lists or specifications
- relevant workplace documentation.

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

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