



Australian Government

UEGNSG056 Launch and recover PIGs in gas transmission pipelines

Release: 1

UEGNSG056 Launch and recover PIGs in gas transmission pipelines

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 prepare, launch and recover pipeline inspection gauges (PIGs) in gas transmission pipelines; inspect and ensure the pipeline is clean and dry with no obstructions.

It includes liaising with stakeholders, analysing and interpreting the pigging data, and testing and inspecting pigging equipment in accordance with manufacturer instructions and workplace procedures.

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

Pre-requisite Unit

Not applicable.

Competency Field

Gas Transmission

Unit Sector

Gas Industry

Elements and Performance Criteria

ELEMENTS

Elements describe the essential outcomes.

1 Prepare and plan for pigging gas transmission pipelines

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 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 Materials, plans, diagrams, drawings and resources required for work are confirmed and obtained in accordance with workplace procedures
 - 1.7 Site, PIG, PIG trap, station and pipeline are prepared to minimise risk and damage to property, commerce and individuals in accordance with workplace procedures
- 2 Launch and recover gas transmission pipeline PIGs**
- 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 Gas transmission pipeline PIG is launched, tracked and recovered in accordance with work schedule and workplace procedures
 - 2.5 Hazardous activities are conducted safely in accordance with regulatory requirements and workplace procedures
 - 2.6 Alarms, codes and hazard warnings are correctly

- recognised, and the correct response strategy is selected and applied in accordance with workplace procedures
- 2.7** Data/results from transmission pipeline pigging operations is gathered/retrieved and analysed to determine internal pipeline conditions in accordance with workplace procedures
- 2.8** Testing and inspecting of the pipeline and pigging equipment is conducted in accordance with job requirements and workplace procedures
- 2.9** Faults and operational conditions of the components are identified, repaired or replaced, and reported in accordance with organisational job requirements
- 2.10** Unplanned events are referred to the relevant person/s for directions in accordance with workplace procedures
- 3 Re-establish transmission pipeline to operational condition, complete work and relevant documentation**
- 3.1** Workplace safety risk control measures for work completion are followed
- 3.2** Retrieved PIG is inspected to determine the wear sustained to the PIG material and anomalies reported in accordance with workplace procedures
- 3.3** Quality and safety checks of the work are conducted in accordance with job requirements, workplace procedures and community and industry standards
- 3.4** Worksite is cleaned, reinstated and made safe in accordance with workplace procedures
- 3.5** Tools, equipment and any surplus resources/materials are cleaned, checked and securely stored in accordance with workplace procedures
- 3.6** Incidents are reported and followed up as required in accordance with workplace procedures
- 3.7** Relevant person/s is notified of work completion 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 replaces and is equivalent to UEGNSG346 Launch and recover PIGs in gas transmission pipelines.

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 UEGNSG056 Launch and recover PIGs in gas transmission pipelines

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:

- analysing data/results from pigging to determine pipeline condition
- applying decision-making and conflict resolution techniques
- applying fault-finding and troubleshooting techniques
- applying relevant industry standards, guidelines, codes of practice, legislation and regulations
- applying relevant workplace safety requirements, including:
 - ensuring emergency response procedures are in place
 - conducting job safety analysis (JSA)
 - working safely with hazardous materials and equipment
 - identifying and reporting hazards
 - implementing risk control measures
 - selecting and using correct personal protective equipment (PPE)
- applying sustainable energy and environmental principles and practices
- communicating with relevant stakeholders
- completing work and relevant documentation, reports, records and drawings
- conducting quality and safety checks
- coordinating and briefing work party
- dealing with unplanned events/situations in accordance with workplace procedures in a manner that minimises risk to personnel and equipment
- following traffic management plans
- following workplace procedures
- interpreting technical drawings and plans
- inspecting pipeline inspection gauges (PIGs) to determine wear
- isolating and de-energising systems
- launching, tracking, receiving and recovering gas transmission PIGs
- obtaining, monitoring and complying with relevant work permits
- obtaining and using relevant tools, equipment and measuring devices, including:
 - gas detector
 - service locator

- preparing and planning for pigging gas transmission pipelines
- preparing station and PIG trap for launch
- recording data
- re-establishing transmission pipeline to operational condition
- testing and inspecting pipeline and pigging 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
- hazardous activities, including lifting, climbing, working in confined spaces, excavations, trenches or aloft, and use of power tools
- pigging a pipeline, including:
 - required set up
 - insertion/launching
 - monitoring and communication
 - capture/recovery
 - analysis and interpretation of data captured through the pigging process
 - traps
 - anomalies, such as ‘stuck pig’
 - dangers
 - waste disposal
- pipeline preparation, including:
 - relevant authorities and persons to be notified and approval requirements
 - types of pipeline materials
 - new and existing pipelines and stations
 - safety requirements and procedures
 - manufacturer operating instructions and workplace procedures
 - trap launchers and receivers installed
 - water and waste disposal requirements
 - pipeline pigging sequence
- quality and safety checks
- relevant documentation, reporting and communication for pigging
- relevant industry plant, equipment, tools and materials
- relevant industry standards, guidelines, codes of practice and regulations
- relevant work permits
- 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
- traffic management plans
- types of PIGs and applications.

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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