



Australian Government

UEGNSG217 Launch and recover PIGs in a gas distribution pipeline

Release: 1

UEGNSG217 Launch and recover PIGs in a gas distribution pipeline

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 launch and recover pipeline inspection gauge (PIG) in gas distribution pipelines to ensure the pipeline is clean and dry with no obstructions prior to commissioning.

It includes inspecting, launching and recovering PIGs and PIG traps in accordance with manufacturer requirements and documenting relevant outcomes.

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

Pre-requisite Unit

Not applicable.

Competency Field

Gas Distribution

Unit Sector

Gas Industry

Elements and Performance Criteria

ELEMENTS

Elements describe the essential outcomes.

1 Prepare and plan for pigging gas distribution pipelines

PERFORMANCE CRITERIA

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

- 1.1** Work health and safety (WHS)/occupational health and safety (OHS) workplace procedures and environmental measures for the site are identified, obtained and applied
- 1.2** Job requirements and workplace procedures for the

work are obtained and discussed with relevant person/s to confirm the work schedule

- 1.3** WHS/OHS, environmental and sustainable energy policies and procedures are obtained and applied
- 1.4** Hazards are identified, WHS/OHS risks are assessed and control measures prioritised, implemented and monitored in accordance with workplace procedures
- 1.5** Responsibilities under the relevant work permit/notification are obtained and confirmed with relevant person/s to access, isolate/de-isolate systems and perform the work in accordance with regulatory requirements and workplace procedures
- 1.6** Personnel, equipment, tools and personal protective equipment (PPE) required for the work are identified, scheduled, obtained and checked for correct operation and safety in accordance with workplace procedures
- 1.7** Materials, plans, diagrams, drawings and resources required for work are confirmed, scheduled and obtained in accordance with workplace procedures
- 1.8** Responsibilities for first aid and other emergency incidents at the work site are checked and confirmed with relevant person/s in accordance with workplace procedures
- 1.9** Communication with authorised person/s, authorities, clients and land-owners is conducted and work coordinated in accordance with work schedule and workplace procedures
- 1.10** Site preparation, safety plan and work schedule are confirmed in accordance with workplace procedures
- 1.11** Site, PIG, PIG trap and pipeline are prepared to minimise risk and damage to property, commerce and individuals in accordance with workplace procedures
- 1.12** Person/s participating in the work, including plant operators and contractors, are briefed and responsibilities confirmed in accordance with workplace procedures
- 1.13** Road signs, barriers and warning devices are positioned in accordance with job requirements, workplace

		procedures and traffic management plan
2 Launch and recover gas distribution pipeline PIGs	2.1	WHS/OHS risk control measures, schedule of work and workplace procedures for carrying out the work are followed
	2.2	Materials, tools, equipment and measuring devices required for the work are selected and used correctly and safely in accordance with manufacturer instructions
	2.3	Hazardous activities and use of power tools, techniques and practices are conducted safely in accordance with job instructions, regulatory requirements and workplace procedures
	2.4	Launch and recovery of gas distribution pipeline PIG is carried out in accordance with work schedule and workplace procedures
	2.5	Work is carried out to industry standards without waste of materials or damage to apparatus, circuits, and the surrounding environment or services using sustainable energy principles
	2.6	Data/results from distribution pipeline pigging operations is gathered/retrieved and analysed to determine internal pipeline conditions in accordance with workplace procedures
	2.7	Testing and inspecting of pipeline and pigging equipment is conducted in accordance with job requirements and workplace procedures
	2.8	Hazards are identified and WHS/OHS risks are assessed and incidents reported to authorised person/s for directions in accordance with workplace procedures
	2.9	Unplanned events and non-routine problems are referred to authorised person/s for direction in accordance with workplace procedures
	2.10	Quality and safety checks of the work are undertaken in accordance with industry standards and workplace procedures
3 Re-establish distribution pipeline to operational condition, and complete work and relevant	3.1	WHS/OHS risk control measures and workplace procedures for completing the work are followed

documentation

- 3.2 Retrieved PIG is inspected to determine the wear sustained to the PIG, material is checked against works schedule for conformance and anomalies reported in accordance with workplace procedures
- 3.3 Waste materials are safely disposed of and work site is rehabilitated, cleaned up and made safe in accordance with workplace procedures
- 3.4 Tools, equipment and any surplus resources and materials are cleaned, checked and securely stored in accordance with workplace procedures
- 3.5 Appropriate person/s are notified of work completion in accordance with workplace procedures
- 3.6 Relevant work permit/s are signed off and pipeline returned to service in accordance with regulatory requirements and workplace procedures
- 3.7 Data is recorded and work completion documentation is completed and provided to the appropriate 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.

launch and recovery of PIGs in new or decommissioned gas distribution main pipelines must include:

- prepare PIG trap for launch
- connections to compressors
- prepare trap for receiving
- determine volume of water /compressor requirements from chart/table needed
- install disc PIG
- carry out pigging operation
- install foam PIG

- carry out pigging operation
- recover PIG
- pressure test pipeline

Unit Mapping Information

This unit replaces and is equivalent to UEGNSG217A Launch and recover PIGs in a gas distribution pipeline.

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 UEGNSG217 Launch and recover PIGs in a gas distribution pipeline

Modification History

Release 1. This is the first release of this unit of competency in the UEG Gas Industry Training Package.

Performance Evidence

Evidence required to demonstrate competence in this unit must be relevant to and satisfy all of the requirements of the elements, performance criteria and range of conditions 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 relevant industry standards, guidelines, codes of practice and regulations
- applying relevant work health and safety (WHS)/occupational health and safety (OHS) requirements, including:
 - ensuring emergency response procedures are in place
 - conducting job safety analysis (JSA)
 - working safely with hazardous materials and equipment
 - hazard identification and reporting
 - implementing risk control measures
 - selecting and using correct personal protective equipment (PPE)
- applying sustainable energy and environmental principles and practices
- carrying out pigging operation
- communicating with relevant stakeholders
- conducting quality and safety checks
- dealing with unplanned events/situations in accordance with workplace procedures in a manner that minimises risk to personnel and equipment
- following traffic management plan
- inspecting pipeline inspection gauges (PIGs) to determine wear
- interpreting technical drawings and plans
- obtaining and complying with relevant work permits
- preparing and planning for pigging gas distribution pipelines
- preparing pig trap for launch
- preparing trap for receiving
- recording data
- recovering distribution pipeline PIG
- re-establishing distribution 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, performance criteria and range of conditions and include knowledge of:

- fault-finding and troubleshooting techniques
- hazardous activities, including lifting, climbing, working in confined spaces or aloft, and use of power tools
- quality and safety checks
- pipeline preparation, including:
 - relevant authorities and persons to be notified and approval requirements
 - types of pipeline materials
 - new and existing pipelines and stations
 - trap launchers and receivers installed
 - water and waste disposal requirements
 - pipeline pigging sequence
- pigging a main pipeline, including:
 - insertion/launching
 - monitoring and communication
 - capture/recovery
 - traps
 - dangers
- relevant documentation, reporting and communication for pigging
- relevant industry plant, equipment, tools and materials
- relevant work permits
- relevant WHS/OHS legislated requirements, including:
 - hazard identification and reporting
 - implementing risk control measures
 - risk assessment
 - hazardous and flammable materials
 - environmental and sustainable energy principles and practices
 - noise levels
- traffic management plans
- types of PIGs and applications
- waste disposal.

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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