



Australian Government

UEGNSG215 Coordinate construction, laying and testing of gas distribution pipelines

Release: 1

UEGNSG215 Coordinate construction, laying and testing of gas distribution 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 coordinate construction, laying and testing of gas distribution pipelines and associated equipment.

It includes notifying other services, communicating with appropriate person/s, ensuring the correct materials, tools and equipment are used and completing relevant documentation.

The application of the skills and knowledge described in this unit may require a licence/registration to practise 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

Gas Distribution

Unit Sector

Gas Industry

Elements and Performance Criteria

ELEMENTS

Elements describe the essential outcomes.

1 Prepare to coordinate pipeline installation

PERFORMANCE CRITERIA

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

- 1.1** Location of services are verified and alignment of gas main and associated equipment are confirmed, as necessary, by site inspection in accordance with work

schedule and workplace procedures

- 1.2** Job requirements and workplace procedures for the work are obtained for all work sites and communicated to relevant person/s in accordance with workplace procedures
- 1.3** Work health and safety (WHS)/occupational health and safety (OHS), environmental and sustainable energy policies and procedures related to the work are obtained, applied and communicated with relevant person/s in accordance with workplace procedures
- 1.4** Work is prioritised and sequenced for completion within acceptable timeframes following consultation with relevant person/s in accordance with workplace procedures
- 1.5** Hazards are identified, WHS/OHS risks are assessed and control measures prioritised, implemented and monitored in accordance with workplace procedures
- 1.6** Relevant work permits are obtained to access, isolate/de-isolate systems and perform the work in accordance with regulatory requirements and workplace procedures
- 1.7** Person/s, plant and equipment, tools and personal protective equipment (PPE) required for the job are identified, scheduled, obtained checked for correct operation and safety in accordance with workplace procedures
- 1.8** Communication with authorised person/s, authorities, clients and land-owners is conducted and work coordinated in accordance with work schedule and 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
- 1.10** Person/s participating in the work are briefed and responsibilities coordinated and confirmed in accordance with job requirements and workplace procedures
- 1.11** Road signs, barriers and warning devices are positioned in accordance with job requirements, workplace procedures and traffic management plan

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| 2 Coordinate construction, laying and testing of pipelines | 2.1 WHS/OHS and environment risk control measures, schedule of work and workplace procedures for carrying out work are followed |
| | 2.2 Hazardous activities are conducted safely and currency confirmed in accordance with regulatory requirements and workplace procedures |
| | 2.3 Construction, laying and testing of gas distribution pipelines is coordinated to ensure completion in agreed timeframe and to required standards with a minimum of waste in accordance with job requirements and workplace procedures |
| | 2.4 Construction, laying and testing work is coordinated in accordance with the work schedule and workplace procedures |
| | 2.5 Hazard warnings and safety signs are recognised, hazards and WHS/OHS risks assessed and reported to authorised person/s for directions in accordance with workplace procedures |
| | 2.6 Unplanned events encountered when coordinating the construction, laying and testing work are identified and actioned in accordance with workplace procedures |
| 3 Complete the coordination of pipeline construction and laying and relevant documentation | 3.1 Final inspections of work are undertaken, checked against work schedule for conformance and anomalies reported in accordance with workplace procedures |
| | 3.2 Accidents and injuries are reported, as required, in accordance with workplace procedures |
| | 3.3 Coordination is done to ensure work site is rehabilitated, cleaned up and made safe in accordance with workplace procedures |
| | 3.4 Tools, equipment and any surplus resources and waste materials are coordinated for removal, cleaning, checking and returning to storage in accordance with workplace procedures |
| | 3.5 Relevant work permit/s are signed off and pipeline returned to service in accordance with job requirements and workplace procedures |
| | 3.6 Work completion records, reports and documentation 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.

tools and equipment must include at least three (3) of the following:

- excavation
- trenching
- shoring
- stitch bore
- horizontal drilling
- directional drilling

pipe connections must include at least four (4) of the following:

- nylon (polyamide) pipeline laying techniques
- nylon gluing
- connection of nylon to other materials
- nylon stop off
- unplasticised polyvinyl chloride (uPVC) pipeline laying techniques
- uPVC solvent cemented joints
- uPVC moulded joints
- uPVC stop off
- uPVC couplings or flanges
- connection of uPVC to other material

procedures must include at least five (5) of the following:

- polyethylene (PE) pipeline laying techniques
- large diameter PE
- PE electro fusion
- PE butt fusion
- saddle fusion
- socket fusion
- PE stop off
- compression couplings or flanges
- connection of PE to other materials

procedures must include at least two (2) of the following:

- practical application of installation and maintenance of plastic pipe systems
- steel pipeline coating repair
- steel pipeline coating testing (jeeper)
- steel, field joint coating

procedures must include at least three (3) of the following:

- connection of PE to steel mains
- steel mains welding
- steel mains repair
- sleeve application
- clamp application
- hot tap and stopple

isolation methods must include at least two (2) of the following:

- high pressure stop off
- bagtube
- squash/squeeze off jacks
- squash/squeeze off pliers

Unit Mapping Information

This unit replaces and is equivalent to UEGNSG207 Coordinate construction, laying and testing of gas distribution 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 UEGNSG215 Coordinate construction, laying and testing of gas distribution pipelines

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:

- applying relevant work health and safety (WHS)/occupational health and safety (OHS) requirements, including:
- ensuring emergency response procedures are in place
- hazard identification and reporting
- implementing risk control measures
- selecting and using correct personal protective equipment (PPE)
- working safely with hazardous materials and equipment
- attaining relevant work permits
- communicating schedules to coordinate person/s
- communicating with other authorities and relevant stakeholders
- completing gas distribution pipeline construction, laying and testing coordination
- completing relevant documentation records and reports
- complying with regulations, industry standards, legislative requirements, codes of practice, manufacturers' recommendations and specifications, and environmental requirements
- conducting quality and safety checks
- conducting site inspections
- coordinating construction, laying and testing of pipelines
- dealing with unplanned events/situations in accordance with workplace procedures in a manner that minimises risk to personnel and equipment
- obtaining and complying with relevant workplace procedures
- performing final inspections
- positioning road signs, barriers and warning devices
- preparing to coordinate pipeline installation
- rehabilitating and maintaining a clean work site
- returning pipeline to service
- using relevant equipment and tools
- verifying location of other services.

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:

- coordination of resources
- compatibility of materials
- effective communication techniques
- final inspections of pipeline processes
- hazardous activities, including:
 - lifting, climbing, working in confined spaces or aloft, and use of power tools
- isolation and de-isolation systems
- location of other services
- planning techniques to coordinate pipeline installation
- problem-solving techniques
- range of materials and jointing techniques relevant to environment and conditions
- regulations, industry standards, legislative requirements, codes of practice, manufacturers' recommendations and specifications, and environmental requirements
- relevant person/s, equipment, tools and processes required for the work
- relevant workplace documentation, records and reports
- relevant workplace policies and procedures
- required work permits
- site preparation, site inspections, secure work area, safety plans and safety checks
- techniques to coordinate construction, laying and insert pipelines and associated equipment
- relevant WHS/OHS legislated requirements, including:
 - applicable emergency procedures
- environmental and sustainable energy principles and practices
- hazard warnings and safety signs
- hazardous materials
- hazards, risk assessment and control measures
- job safety assessments
- PPE
- site reinstatement/ return to service
- traffic management plans.

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 PPE currently used in industry
- applicable documentation, including workplace procedures, equipment specifications, regulations, codes of practice and operation manuals.

Links

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