



Australian Government

UEGNSG228 Construct and lay large copper gas distribution pipelines

Release: 1

UEGNSG228 Construct and lay large copper 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 construct and lay copper gas distribution pipelines and services above 20 mm diameter.

It includes using relevant tools and equipment, completing necessary documentation, and working safely in accordance with workplace procedures and relevant legislative, standard and code requirements.

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

Pre-requisite Unit

UEGNSG134 Establish a utilities infrastructure work site

Competency Field

Gas Distribution

Unit Sector

Gas Industry

Elements and Performance Criteria

ELEMENTS

Elements describe the essential outcomes.

1 Prepare to construct and lay large copper 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 site

are discussed with relevant person/s to confirm work schedule

- 1.3** WHS/OHS, environmental and sustainable energy policies and procedures are obtained and applied in accordance with workplace procedures
- 1.4** Hazards are identified, WHS/OHS risks are assessed and control measures prioritised, implemented and monitored in accordance with workplace procedures
- 1.5** Scope of work and level of responsibility under the relevant work permit and/or notification is confirmed with relevant person/s in accordance with job requirements and workplace procedures
- 1.6** Equipment, plant, tools and personal protective equipment (PPE) required to construct and lay copper gas pipelines and services are identified, obtained and checked for correct operation and safety in accordance with workplace procedures
- 1.7** Relevant person/s are consulted to ensure work is coordinated effectively with others involved
- 1.8** Materials, plans, diagrams, drawings and resources required to construct and lay gas distribution pipelines are confirmed, scheduled and obtained in accordance with workplace procedures
- 1.9** Safety and emergency procedures and responsibilities for an incident at the work site are checked and confirmed with relevant person/s
- 1.10** Third-party issues are referred to relevant person/s in accordance with workplace procedures
- 1.11** Site preparation, safety plan and work schedule are confirmed with relevant person/s in accordance with established procedures

2 Construct and lay large copper gas distribution pipelines

- 2.1** WHS/OHS and environmental risk control measures, schedule of work and workplace procedures for carrying out 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 and workplace procedures

- 2.3 Hazardous activities are conducted safely in accordance with WHS/OHS workplace procedures and job instructions
 - 2.4 Excavation bed/trench is prepared for laying of large pipe above 20 mm in diameter in accordance with relevant industry standards and workplace procedures
 - 2.5 Construction and laying of copper gas pipelines and services are conducted in accordance with relevant industry standards and workplace procedures
 - 2.6 Work is carried out to the required standard, without waste of materials or damage to apparatus, equipment, and the surrounding environment or services using sustainable energy principles
 - 2.7 WHS/OHS risks, incidents and accidents are reported to authorised person/s for directions in accordance with workplace procedures
 - 2.8 Unplanned events are referred to authorised person/s for directions are followed in accordance with workplace procedures
 - 2.9 Quality and safety checks of work and testing of pipework is carried out in accordance with industry standards, work instructions and workplace procedures
- 3 Complete the work and relevant documentation**
- 3.1 WHS/OHS and environmental risk control measures for work completion are followed
 - 3.2 Relevant person/s are notified of work completion in accordance with workplace procedures
 - 3.3 Tools, equipment and any surplus resources and materials are cleaned, checked and securely stored in accordance with workplace procedures
 - 3.4 Work site is tidied and made safe in accordance with workplace procedures
 - 3.5 Relevant documentation is completed and provided to 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.

competency must be demonstrated by constructing and laying copper gas distribution pipelines and services above 20 mm diameter and include:

- laying and cutting pipes
- joining pipes and fittings
- installing the meter connection to the services users

Unit Mapping Information

This unit replaces and is equivalent to UEGNSG228A Construct and lay large copper 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 UEGNSG228 Construct and lay large copper gas distribution 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, performance criteria and range of conditions on at least two separate occasions and include:

- applying relevant industry standards, guidelines, codes of practice and regulations
- applying relevant work health and safety (WHS)/occupational health and safety (OHS) requirements
- applying sustainable energy and environmental principles and practices
- cleaning, checking and storing tools and equipment
- communicating effectively with others
- completing required documentation and reporting
- conducting quality and safety checks
- constructing and laying large copper gas distribution pipelines
- dealing with unplanned events/situations in accordance with workplace procedures in a manner that minimises risk to personnel and equipment
- identifying reading plans, drawings, manuals and diagrams correctly
- identifying plant and equipment and safe operating parameters/requirements
- maintaining a clean work area
- preparing the excavation site
- selecting and checking tools, equipment, plant and personal protective equipment (PPE) for correct operation and safety
- testing pipework
- working in accordance with relevant work permit/notifications.

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:

- conditions for direct installation or insertion of large copper gas pipelines
- construction of large copper gas pipelines
- copper and other piping materials types, characteristics and components

- copper gas pipelines above 20 mm diameter
- effective communication techniques
- environmental and sustainable energy principles and practices
- excavation/trenching and bedding requirements for large copper gas pipelines
- hazardous activities, including the use of power tools, lifting, climbing, and working in confined spaces, excavations and trenches
- installation and testing of large copper gas pipelines
- problem-solving techniques
- quality and safety checks
- relevant manufacturer specifications
- relevant materials, plans, diagrams, drawings and resources
- relevant materials, tools, equipment, plant, measuring devices and PPE
- relevant safe work method statements (SWMS)/job safety assessments or risk mitigation processes
- relevant industry standards, legislations, codes of practice and regulations
- relevant WHS/OHS legislated requirements, including:
 - hazards, risk assessment and control measures
 - dangers of working with live gas
- relevant work permits and/or notifications
- relevant workplace documentation
- relevant workplace policies and procedures
- site preparation, safety plans, job requirements and work schedules
- third-party issues.

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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