



Australian Government

UEGNSG354 Control excavations in the vicinity of gas transmission pipelines

Release: 1

UEGNSG354 Control excavations in the vicinity of 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 plan, control and monitor excavations in the vicinity of gas transmission pipelines to ensure the integrity of the pipeline is not compromised.

It includes applying relevant legislation, code of practice, regulations and workplace procedures, and completing work and relevant documentation.

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

Pre-requisite Unit

UEGNSG004 Locate, prove and protect utility assets

Competency Field

Gas Transmission

Unit Sector

Gas Industry

Elements and Performance Criteria

ELEMENTS

Elements describe the essential outcomes.

1 Plan to control excavations in the vicinity of gas transmission 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), environmental and sustainable energy policies and procedures are obtained and applied to ensure safe systems of work are followed

- 1.2 Works schedule/s, job requirements, drawings, plans, materials and equipment are examined to assess the extent of required work preparation
 - 1.3 Work is prioritised and sequenced for completion within acceptable timeframes following consultation with relevant person/s in accordance with workplace procedures
 - 1.4 Utility assets are identified by contacting responsible authorities
 - 1.5 WHS/OHS and environmental risk control measures are identified, evaluated and prioritised against the work schedule
 - 1.6 Job requirements and workplace procedures for the work are obtained for all work sites and communicated to relevant person/s
 - 1.7 Relevant work permits/authorisations are obtained to coordinate the work in accordance with regulatory and job requirements and workplace procedures
 - 1.8 Resources, including person/s, equipment, tools and personal protective equipment (PPE), required for the job are identified, scheduled, coordinated and checked for correct operation and safety in accordance with workplace procedures
 - 1.9 Clients are provided with possible solutions and options within the scope, acceptable cost and requirements
 - 1.10 Communication issues with authorised persons, authorities, clients and land owners are resolved and work coordinated in accordance with work schedule and workplace procedures
 - 1.11 Person/s participating in the work are briefed, inducted and responsibilities coordinated and authorised in accordance with workplace procedures
 - 1.12 Site preparation, safety plan and work schedule are confirmed in accordance with workplace procedures
- 2 **Monitor and control excavation in the vicinity of gas transmission pipelines**
 - 2.1 WHS/OHS policies and procedures and safe work practices are followed to eliminate or minimise incidents and hazards

- 2.2 Analysis of information to identify key issues is undertaken, as required, and information is evaluated for relevance and validity to the requirements
 - 2.3 First aid and other related work procedures are performed in accordance with requirements and workplace procedures
 - 2.4 Hazardous activities are safely exercised in accordance with workplace procedures and job requirements
 - 2.5 Equipment faults are identified through inspection and testing of operational equipment in accordance with work schedule and requirements
 - 2.6 Hazard warnings and safety signs are recognised and hazards and WHS/OHS risks assessed and reported to authorised person/s for directions in accordance with workplace procedures
 - 2.7 Operating conditions of equipment are monitored in accordance with workplace procedures and manufacturer instructions
 - 2.8 Excavation is benched or shoring is used in accordance with relevant legislation and requirements
 - 2.9 Other utility assets are located and confirmed in accordance with workplace procedures
 - 2.10 Fault-finding and troubleshooting techniques are applied to identify any repairs or maintenance required in accordance with job requirements and workplace procedures
 - 2.11 Solutions to unplanned events and non-routine problems are identified and actioned in accordance with workplace procedures
 - 2.12 Quality and safety checks of the work are undertaken in accordance with workplace procedures and community and industry standards
- 3 Complete work and relevant documentation**
- 3.1 Excavation work is checked against work schedule for conformance and anomalies and proposed solutions are reported to relevant person/s in accordance with workplace procedures
 - 3.2 Accidents and injuries are reported and followed up in

accordance with requirements and workplace procedures

- 3.3** Work site is rehabilitated/cleaned up and confirmed safe in accordance with workplace procedures
- 3.4** Tools, equipment and any surplus resources and materials are cleaned, checked and returned to storage in accordance with workplace procedures
- 3.5** Relevant work permit/s are signed off in accordance with job requirements
- 3.6** Work completion records, reports, documentation and as installed/modified drawing/s are completed, processed and appropriate person/s notified

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 UEGNSG354A Control excavations in the vicinity of 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 UEGNSG354 Control excavations in the vicinity of gas transmission 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 and performance criteria on at least two separate occasions and include:

- applying planning skills, including contacting relevant organisations to determine utility service locations and planning to control excavation in the vicinity of gas transmission pipelines
- applying relevant work health and safety (WHS)/occupational health and safety (OHS) requirements, including:
 - applying safe manual handling techniques
 - 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
- applying sustainable energy and environmental principles and practices
- communicating effectively in the workplace, including conducting briefings
- completing work and relevant documentation, records, reports and drawings, including 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
- identifying and evaluating threats to the integrity of transmission pipelines, including controlling threats to the integrity of transmission pipelines
- inspecting and testing equipment
- interpreting technical drawings and plans
- issuing, monitoring and controlling work permits
- locating other assets in a safe manner
- maintaining a safe and clean work site
- monitoring and controlling excavations in the vicinity gas transmission pipelines, including benching and shoring
- operating pipe locator
- performing on-site inductions
- supervising contractors.

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:

- construction and excavation machinery
- emergency, accident and incident situations, including emergency/incident control procedures and emergency response plans
- external interference physical and procedural protection measures
- fault-finding and troubleshooting techniques
- hazardous activities, including lifting, climbing, working in confined spaces and aloft
- locating utilities and services
- notification of appropriate authorities and requirements for temporary or permanent restorations
- plans, codes of practice, industry standards and drawings relevant to specific work sites
- preparing, conducting and completing an excavation, including:
 - excavation and shoring techniques, including excavating of gas industry workplace trenches and gas transmission pipeline proximity excavation
 - WHS/OHS and environmental principles and practices, including:
 - environmental and sustainable energy principles and practices
 - hazard identification and reporting
 - hazardous and flammable materials
 - implementing risk control measures
 - personal protective equipment
 - risk assessment
 - safety data sheets (SDS)/material safety data sheets (MSDS) and spill kits
- preparing an excavation site
- regulatory requirements and procedures for excavating trenches and reinstating sites
- relevant authorities or enterprises to contact regarding the location of other utilities or services, including Dial Before You Dig
- relevant industry plant, equipment, tools and materials
- relevant industry standards, guidelines, codes of practice and regulations
- relevant manufacturer specifications
- relevant plans and drawings to identify the location of utilities and services
- relevant safe work method statements (SWMS)/job safety assessments or risk mitigation processes
- relevant WHS/OHS legislated requirements, including industry standards, codes of practice and guidelines
- relevant work permits and authorisations
- relevant workplace documentation
- relevant workplace policies and procedures
- security breach procedures.

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.

As a minimum, assessment must satisfy applicable regulatory requirements, which include requirements in 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

Companion Volume Implementation Guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=6a6c032e-ffcb-4f3d-8063-415efbd261e8>