



Australian Government

UEGNSG049 Control excavations in the vicinity of gas transmission pipelines

Release: 1

UEGNSG049 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

UEGNSG058 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** 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 Equipment, tools and personal protective equipment (PPE) needed to carry out work activities are identified, obtained and checked for correct operation and safety in accordance with workplace procedures and manufacturer instructions
 - 1.7 Materials, plans, diagrams, drawings and resources required for work are confirmed and obtained in accordance with workplace procedures
- 2 **Monitor and control excavation in the vicinity of gas transmission pipelines**
 - 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 Hazardous activities are conducted safely in accordance with regulatory requirements and workplace procedures
 - 2.5 Alarms, codes and hazard warnings are correctly recognised, and the correct response strategy is

- selected and applied in accordance with workplace procedures
- 2.6** Operating conditions of equipment are monitored in accordance with workplace procedures and manufacturer instructions
- 2.7** Excavation is benched or shoring is used in accordance with relevant legislation and requirements
- 2.8** Other utility assets are located and confirmed in accordance with 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 and non-routine problems are identified and actioned in accordance with workplace procedures
- 3 Complete work and relevant documentation**
- 3.1** Workplace safety risk control measures for work completion are followed
- 3.2** Quality and safety checks of the work are conducted in accordance with job requirements, workplace procedures and community and industry standards
- 3.3** Worksite is cleaned, reinstated and made safe in accordance with workplace procedures
- 3.4** Tools, equipment and any surplus resources/materials are cleaned, checked and securely stored in accordance with workplace procedures
- 3.5** Incidents are reported and followed up as required in accordance with workplace procedures
- 3.6** Relevant person/s is notified of work completion in accordance with workplace procedures
- 3.7** 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 UEGNSG354 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 UEGNSG049 Control excavations in the vicinity of 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:

- 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 workplace safety requirements, including:
 - applying safe manual handling techniques
 - ensuring emergency response procedures are in place
 - identifying and reporting hazards
 - 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 worksite
- 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 worksites
- preparing, conducting and completing an excavation, including:
 - excavation and shoring techniques, including excavating of gas industry workplace trenches and gas transmission pipeline proximity excavation
 - workplace safety 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
 - PPE
 - risk assessment
 - safety data sheets (SDS) 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 analysis (JSA) or risk mitigation processes
- 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
- 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.

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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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