



Australian Government

UEGNSG219 Conduct excavations in the utilities industry

Release: 1

UEGNSG219 Conduct excavations in the utilities industry

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 prepare, conduct and complete excavation work and relevant documentation in the utilities industry.

It includes site preparation and planning, including traffic control, and excavation and back filling work in accordance with relevant legislation, industry standards, codes of practice and workplace procedures.

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

Pre-requisite Unit

Not applicable.

Competency Field

Transmission and Distribution

Unit Sector

Gas Industry

Elements and Performance Criteria

ELEMENTS

Elements describe the essential outcomes.

1 Prepare to conduct excavation work

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) and environmental measures for the site are identified, obtained and applied in accordance with workplace procedures
- 1.2** Job requirements and workplace procedures for the site are discussed with relevant person/s to confirm the work

schedule

- 1.3** Hazards are identified and reported to the supervisor to assess risks and control measures implemented in accordance with workplace procedures
 - 1.4** Scope of responsibility under the relevant work permit and/or relevant authorisation is obtained and confirmed with relevant person/s in accordance with job requirements and workplace procedures
 - 1.5** Equipment, tools, excavation machinery and personal protective equipment (PPE) required for the excavation work are identified, obtained and checked for correct operation and safety in accordance with manufacturer instructions and workplace procedures
 - 1.6** Materials, plans, diagrams, maps, drawings and resources required for the excavation are obtained and confirmed with relevant person/s and against job requirements in accordance with workplace procedures
 - 1.7** Responsibilities for safety and emergency procedures for an incident at the work site are checked and confirmed with relevant person/s
 - 1.8** Client issues are referred to relevant person/s in accordance with workplace procedures
 - 1.9** Location of other utility services, site preparation and work schedule are confirmed against job requirements and relevant maps, diagrams and plans in accordance with workplace procedures
 - 1.10** Traffic management signs, barriers and warning devices are confirmed as correctly positioned with relevant person/s in accordance with job requirements, traffic management plans and workplace procedures
- 2 Conduct excavation work**
- 2.1** WHS/OHS risk control measures, schedule of work and workplace procedures for carrying out work are followed
 - 2.2** Materials, tools, plant and equipment for the excavation work are selected and used safely in accordance with manufacturer instructions and workplace procedures
 - 2.3** Hazardous activities associated with excavation work are conducted in accordance with job instructions, safety

requirements and workplace procedures

- 2.4 Excavation work, shoring and trenching, is carried out to industry standards, without waste of materials or damage to apparatus, equipment, and the surrounding environment or services using sustainable energy principles
- 2.5 WHS/OHS risks, incidents and unplanned events are reported to authorised person/s for directions in accordance with workplace procedures
- 2.6 Quality and safety checks are carried out in accordance with workplace procedures

3 Complete excavation work and relevant documentation

- 3.1 WHS/OHS risk control measures for work completion are reviewed, monitored and followed
- 3.2 Backfilling is performed, work site rehabilitated, tidied, made safe and markers installed or re-instated in accordance with work schedule and workplace procedures
- 3.3 Tools, plant, equipment and any surplus resources and materials are cleaned, checked and securely stored in accordance with workplace procedures.
- 3.4 Relevant person/s are notified of work completion in accordance with workplace procedures
- 3.5 Documentation is completed 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 UEGNSG219A Conduct excavations in the utilities industry.

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 UEGNSG219 Conduct excavations in the utilities industry

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 relevant work health and safety (WHS)/occupational health and safety (OHS) requirements, including:
 - accessing and using relevant safety resources
 - dealing with unplanned events/situations in accordance with workplace procedures in a manner that minimises risk to personnel and equipment
 - following emergency management plan
 - following safety and emergency procedures for incidents
 - hazard identification and reporting
 - implementing risk control measures
 - selecting and using the correct personal protective equipment (PPE)
 - undertaking hazardous activities in a safe manner
- applying sustainable energy and environmental principles and practices
- completing excavation work and relevant documentation
- following manufacturer instructions
- following workplace policies and procedures, including:
 - obtaining relevant resources and materials for conducting excavation work, including shoring, trenching and backfilling
 - confirming location of other utility services
 - excavation procedures
 - obtaining relevant work permits and notifications
 - preparatory procedures
 - traffic control procedures
- identifying and checking tools, equipment and plant for correct operation and safety, including cleaning and storing tools, equipment, machinery and plant after use
- installing or re-instating markers part of confirmation of location
- obtaining, interpreting and completing workplace documents, including plans, drawings, work instructions, permits, maps, diagrams, schedules, and quality and safety checks
- obtaining job requirements, work instructions, safety plan and work schedule

- positioning traffic management signs, barriers and warning devices
- rehabilitating and maintaining a clean and safe work site
- selecting and operating correct tools, plant, equipment, and machinery, including:
 - small generator sets
 - air compressors and hoses
 - pneumatic hammers
 - rollers and compactors
 - hand held concrete and ceramic cutters.

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:

- client issues include gas utilities assets types, characteristics relevant to network operator
- environmental and sustainable energy principles and practices
- excavation of trenches and manholes, including:
 - manual excavation
 - mechanical excavation
 - excavation process and work designs
 - excavation types, steps, approval, documentation and maps
 - non-invasive excavation machines
 - backfilling
- excavation and shoring techniques to suit varying conditions, including:
 - surface types
 - soil types
 - weather
 - traffic
 - time of day
 - location
- quality and safety checks
- relevant manufacturer specifications
- relevant materials, tools, equipment, devices and PPE
- relevant permits and authorisations required
- relevant WHS/OHS legislated requirements
- relevant workplace documentation
- relevant workplace policies and procedures
- relevant legislation, regulations, codes of practice and industry standards
- relevant plans, diagrams, maps and drawings
- relevant safety and environmental hazards and mitigation measures, including:
 - hazards and field risk assessments

- electrical, gases, toxins and fumes
- security and fall prevention
- prevention of trench collapse
- confined spaces awareness
- traffic hazards
- emergency control measures
- first aid, emergency and safety procedures for incidents
- hazards and hazardous activities in the workplace
- site preparation, work schedules, safety plans and job requirements
- trench and site restoration and reinstatement techniques, including:
 - ground surface level finishes
 - asset markers and signs
- techniques to identify other utilities
- techniques to minimise waste
- traffic management signs, barriers and warning devices.

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>