Australian Government

Department of Education, Employment and Workplace Relations

# PUASAR030A Undertake trench rescue

**Revision Number: 2**

ISC INDUSTRY SKILLS COUNCILS
Creating Australia's Future

## PUASAR030A Undertake trench rescue

## Modification History

| Release | TP version | Comments |
|---|---|---|
| 2 | PUA12 V1 | Layout adjusted. |
| 1 | PUA00 V8.1 | First release in TGA. |

## Unit Descriptor

This unit covers the competency required to undertake trench rescue as member of a single agency or multi-disciplinary team.
No licensing, legislative, regulatory or certification requirements apply to this unit at the time of publication.

## Application of the Unit

The application of this unit in the workplace covers a range of trench rescue situations.
The unit is typically performed by personnel from emergency services and/or volunteer organisations or organisations working in environments where potential for trench collapse is prevalent.

## Licensing/Regulatory Information

Not applicable.

## Pre-Requisites

PUASAR022A Participate in a rescue operation

## Employability Skills Information

This unit contains employability skills.

# Elements and Performance Criteria Pre-Content

| Elements describe the essential outcomes of a Unit of Competency. | Performance Criteria describe the required performance needed to demonstrate achievement of the element. Where *bold italicised* text is used, further information is detailed in the Range Statement. Assessment of performance is to be consistent with the Evidence Guide. |
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# Elements and Performance Criteria

| ELEMENT | PERFORMANCE CRITERIA |
|---|---|
| **1. Prepare for trench rescue operation** | 1.1 Operation and task incident information is obtained and analysed. |
| | 1.2 Shoring, propping and excavating equipment is identified and prepared for use. |
| | 1.3 *Personal protective equipment* and *trench rescue equipment* is selected relevant to trench rescue operation. |
| | 1.4 Any further details of the nature of the rescue are received en route. |
| | 1.5 Anticipated hazards and associated risks are discussed with rescue team members while on route. |
| **2. Assess and manage a trench rescue scene** | 2.1 Physical features of a trench rescue are assessed before deploying rescue resources. |
| | 2.2 Trench rescue scene is managed to control access and to maintain a safe and effective operational environment. |
| | 2.3 *Scene management* procedures are followed in accordance with organisational procedures and legal requirements. |
| | 2.4 Communication with other personnel on site is established and maintained. |
| | 2.5 *Situational and environmental hazards* are assessed, minimised and controlled. |
| **3. Stabilise the trench** | 3.1 Trench collapse pattern and signs of further collapse are identified. |
| | 3.2 Action to minimise further trench collapse is undertaken. |
| **4. Locate and gain entry into a collapsed trench** | 4.1 Assessment is undertaken of incident scene to determine possible location of casualties. |
| | 4.2 Appropriate resources are used to assist in location of casualties. |
| | 4.3 Condition of casualties and nature of entrapment is ascertained where possible in accordance with organisational procedures. |
| | 4.4 Appropriate excavation techniques are employed to gain access to casualties. |
| | 4.5 Located casualties are treated in consultation with medical personnel and in accordance with organisational policies. |
| | 4.6 Hygiene procedures are followed in accordance with organisational procedures. |
| **5. Remove casualties** | 5.1 Entrapped casualties are released, treated and stabilised in accordance with organisational |

| ELEMENT | PERFORMANCE CRITERIA |
|---|---|
| | procedures. |
| | 5.2 Released casualties are removed using **recognised techniques.** |
| | 5.3 Appropriate actions are taken to preserve incident scene, where required. |
| **6. Conclude rescue operations** | 6.1 Equipment is recovered, cleaned and maintained according to organisational procedures and manufacturer's guidelines. |
| | 6.2 Signs and symptoms of operational stress are recognised and promptly reported. |
| | 6.3 **Operational documentation** is completed to organisational standards. |

# Required Skills and Knowledge

This describes the essential skills and knowledge and their level, required for this unit.

## Required Skills

- construct and install shoring and propping systems
- operate lifting systems
- operate lowering and hauling systems
- operate ventilation equipment

## Required Knowledge

- atmospheric monitoring procedures
- organisational procedures for cleaning and discarding equipment in terms of environmental management and sustainability
- shoring and propping techniques
- soil stability
- trench collapse patterns

# Evidence Guide

The evidence guide provides advice on assessment and must be read in conjunction with the Performance Criteria, Required Skills and Knowledge, the Range Statement and the Assessment Guidelines for this Training Package.

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| **Critical aspects for assessment and evidence required to demonstrate competency in this unit** | Assessment must confirm the ability to:<br><br>• shore, prop and shield<br>• recognise further signs of trench collapse<br>• apply safe work practices<br>• extricate casualty minimising further injury to self or others<br><br>**Consistency in performance**<br>Competency should be demonstrated over time in a range of actual and/or simulated workplace environments. |
| **Context of and specific resources for assessment** | **Context of assessment**<br>Competency should be assessed in an industry-approved simulated and/or workplace environment involving trench rescues using a range of equipment.<br>**Specific resources for assessment**<br>Access is required to:<br><br>• appropriate location/venue/trench<br>• organisational rescue equipment<br>• personnel for team-based activities |
| **Method of assessment** | In a public safety environment assessment is usually conducted via direct observation in a training environment or in the workplace via subject matter supervision and/or mentoring, which is typically recorded in a competency workbook.<br>Assessment is completed using appropriately qualified assessors who select the most appropriate method of assessment.<br>Assessment may occur in an operational environment or in an industry-approved simulated work environment.<br>Forms of assessment that are typically used include:<br><br>• direct observation<br>• interviewing the candidate<br>• journals and workplace documentation<br>• third party reports from supervisors<br>• written or oral questions |

# Range Statement

The Range Statement relates to the Unit of Competency as a whole. It allows for different work environments and situations that may affect performance. ***Bold italicised*** wording in the Performance Criteria is detailed below.

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| ***Personal protective equipment*** may include: | • breathing apparatus/airline<br>• gloves<br>• hearing protection aids<br>• helmets<br>• safety glasses<br>• safety lines<br>• spillage/hazmat clothing |
| ***Trench*** is defined as: | • specified in state/territory legislation |
| ***Trench rescue equipment*** may include: | • atmospheric monitoring<br>• excavating equipment<br>• hand tools<br>• pumps<br>• shoring shields and propping equipment<br>• ventilation equipment |
| ***Scene management*** may include: | • establishing and monitoring safety zones<br>• establishing barriers and perimeter access controls<br>• liaising with medical services<br>• managing bystanders and media<br>• preserving evidence |
| ***Situational and environmental hazards*** may include: | • exposure to toxic, biological or substance<br>• falls from heights or into depths<br>• further trench collapse<br>• heat exhaustion or hypothermia<br>• moving machinery either electrical or mechanical<br>• tides<br>• vibrations from external sources<br>• water<br>• weather |
| ***Recognised removal techniques*** may include: | • propping<br>• shielding and excavating<br>• shoring |
| ***Operational documentation*** may include: | • field notes<br>• incident reports<br>• legislation<br>• notebooks, logbooks<br>• organisational policies and procedures |

- post operational report
- related legal requirements

## Unit Sector(s)

Not applicable.