



**Australian Government**

**Department of Education, Employment and Workplace Relations**

# **PUASAR026A Undertake industrial and domestic rescue**

**Revision Number: 2**

## PUASAR026A Undertake industrial and domestic rescue

### Modification History

Release	TP release	Comments
2	PUA12 V1	Layout adjusted.
1	PUA00 V8.1	First release into TGA.

### Unit Descriptor

This unit covers the competency required to gain access to and extricate entrapped casualty/s from a range of industrial and/or domestic incidents while minimising the potential for further injury and preserving the integrity of evidence.

An industrial rescue involves the safe removal of persons who have had an accident in the workplace such as factories, warehouses and building sites. It involves disentanglement from machinery, and extrication from heavy machinery such as cranes. Rescue of occupants trapped in elevators and escalators is also included.

Domestic rescue involves the rescue of occupants trapped in household settings. This includes such things as children with fingers in drain plugs, removal of rings, and persons who are physically incapable of removing themselves from their houses due to ill health.

This unit requires the responder to access entrapped casualties using a range of techniques and to operate specialist equipment to undertake the rescue.

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

### Application of the Unit

This unit typically applies to a member of a rescue team.

This unit may be customised to suit a range of industrial and/or domestic incidents based on an organisational risk profile.

### Licensing/Regulatory Information

Not applicable.

### Pre-Requisites

Not applicable.

## 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.

## Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
<p><b>1. Prepare for industrial/domestic rescue</b></p>	<p>1.1 <i>Operation and task information</i> is obtained and assessed upon call out to <i>domestic or industrial rescue incident</i>.</p> <p>1.2 Based on incident information, appropriate <i>rescue resources</i> are identified, selected, received and checked to ensure they are ready for use.</p> <p>1.3 <i>Personal protective equipment (PPE) and clothing</i> are selected based on type of industrial or domestic equipment. involved.</p> <p>1.4 <i>Systematic approach</i> to identifying <i>potential hazards and associated risks</i> is undertaken en route and on approach to the incident.</p>
<p><b>2. Establish and maintain rescue scene safety</b></p>	<p>2.1 <i>Communication</i> and ongoing liaison with heavy vehicle rescue team members on site is established.</p> <p>2.2 Liaison with <i>other relevant personnel</i> is established and maintained.</p> <p>2.3 <i>Rescue scene reconnaissance</i> and size up is conducted.</p> <p>2.4 <i>Situational</i> and <i>environmental hazards</i> are identified, analysed, evaluated and <i>treated</i>, marked and monitored.</p> <p>2.5 Rescue team is positioned taking into account <i>potential dangers</i>, requirements for personnel and vehicles to <i>access the scene</i>, and <i>limitations of operating equipment</i>.</p> <p>2.6 Safe work area is established to protect casualties, emergency services personnel and members of the public.</p> <p>2.7 Preventative action is taken to minimise the risk of fire or other potential hazards, where required.</p> <p>2.8 <i>Impact effects on occupancy areas</i> and <i>potential effects on casualties</i> are assessed.</p> <p>2.9 Techniques and equipment are employed to <i>stabilise the occupancy area</i> and to make the incident site safe.</p> <p>2.10 Scene lighting is established to reduce hazards associated with the type of incident.</p> <p>2.11 Specialist rescue resources are accessed based on an assessment of the incident.</p>
<p><b>3. Manage casualties</b></p>	<p>3.1 <i>Hygiene precautions</i> are implemented in accordance with organisational requirements.</p> <p>3.2 Techniques and equipment are used to <i>gain access to entrapped casualties</i> within the occupancy area/s.</p> <p>3.3 <i>Primary survey</i> of casualty is undertaken to</p>

**ELEMENT****PERFORMANCE CRITERIA**

	determine injury type and severity.
	3.4 Injuries are confirmed that may complicate removal of casualty from the occupancy area and appropriate action is taken.
	3.5 In the event of multiple casualties, triage assessment is undertaken to determine priorities for medical treatment and for extrication.
	3.6 Need for additional personnel and/or specialist equipment is requested.
	3.7 Support is provided to medical personnel assisting with the treatment of the entrapped person/s as required.
<b>4. Extricate casualty/s</b>	4.1 Casualty/s are protected from injury during extrication.
	4.2 <b><i>Treatment of located casualty/s</i></b> is undertaken in consultation with medical personnel and in accordance with organisational policies.
	4.3 Access plans are determined with consultation team leader, medical staff and other technical specialists.
	4.4 Rescue techniques and equipment used by the rescue team take into account the features of the occupancy area including materials and design elements that may impact on the extrication.
	4.5 Casualty/s are <b><i>removed</i></b> using recognised techniques and equipment.
<b>5. Carry out rescue operations</b>	5.1 Liaison is undertaken with primary response team and other relevant personnel.
	5.2 Additional technical equipment is employed to make incident scene safe.
	5.3 Procedures are implemented to protect casualty/s from further injury or discomfort during access and removal.
	5.4 Access path is provided for the removal of casualty/s using appropriate rescue techniques and equipment.
	5.5 Scene is <b><i>preserved</i></b> for investigating officer/s.
<b>6. Conclude rescue operations</b>	6.1 Equipment is <b><i>recovered, cleaned and serviced</i></b> according to manufacturers' guidelines and organisational standards.
	6.2 <b><i>Signs and symptoms of operational stress</i></b> in self and others are reported to relevant personnel.
	6.3 Operational <b><i>debrief</i></b> is attended and <b><i>documentation</i></b> is completed to organisational standards.
	6.4 <b><i>Exposure records</i></b> are completed.

## Required Skills and Knowledge

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

### Required Skills

- communication
- conduct a primary survey
- decision making
- extricate casualties safely
- identify symptoms of physical/emotional stress
- solve problems
- use rescue equipment
- wear PPE and clothing in accordance with organisational requirements
- work within the organisation's command and control structure

### Required Knowledge

- available equipment and equipment function
- emergency care
- hygiene procedures
- manufacturer's operational guidelines
- operate rescue equipment
- organisational policies and procedures (such as relevant legislation; operational, corporate and strategic plans; operational performance standards; operational policies and procedures; organisational personnel and occupational health and safety practices and guidelines; organisational quality standards; organisation's approach to environmental management and sustainability)
- primary survey procedures
- relevant legislation
- relevant occupational health and safety (OH&S) principles and practices
- rescue equipment
- safe work practices
- scene assessment procedures
- situational awareness
- symptoms of physical/emotional stress
- use of personal protective equipment

## Evidence Guide

### Critical aspects for assessment and evidence required to demonstrate competency in this unit

Assessment must confirm the ability to:

- apply a systematic approach to the rescue and to implement safe work practices throughout the incident
- safely and effectively extricate casualty/s; minimising further injury or discomfort while conducting rescue operation
- operate equipment to gain access to entrapped casualties in accordance with organisational procedures
- maintain situational awareness and be alert to environmental and situational hazards
- work effectively as a member of a rescue team in a multi-agency environment

### Consistency in performance

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

Competency should be assessed in an industry-approved simulated and/or workplace environment.

#### Specific resources for assessment

Access is required to:

- simulation of a range of domestic appliances, industrial machinery, an elevator shaft and an escalator
- equipment, personnel, facilities etc. appropriate to a industrial/domestic rescue incident training exercise

### Methods 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.

Assessment is completed using appropriately qualified assessors who select the most appropriate method of assessment.

Assessment may occur in an operational environment or in an industry-approved simulated work environment.

Forms of assessment that are typically used include:

- direct observation
- interviewing the candidate
- journals and workplace documentation

- third party reports from supervisors
- 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.

### ***Operation and task***

***information*** may include:

- availability of company personnel to provide technical advice
- environmental and other hazards
- incident location
- other public safety organisations at the scene or en route
- time of day and traffic density
- type of rescue and number of casualties
- type of machinery or household item involved

***Domestic or industrial rescue*** may include:

- domestic rescue
- children with fingers in drain plugs
- removal of rings
- persons who are physically incapable of removing themselves from their houses due to ill health
- industrial rescue
- agricultural machinery
- disentanglement from machinery located in factories, warehouses and building sites
- elevators/escalators
- industrial/construction incidents
- industrial machinery entrapments
- occupant/s trapped in elevators and escalators
- shipping containers

***Rescue resources*** may include:

- ancillary equipment such as stretchers
- firefighting equipment
- hand tools
- hot cutting equipment
- lifting and hauling equipment
- lighting equipment
- pneumatic hydraulic mechanical electrical tools
- patient protection equipment
- rescue units and stowed equipment
- tool boxes



***Personal protective equipment and clothing*** may include:

- boots
- eye protection
- gloves
- hearing protection
- helmet
- knee/elbow protection

***Systematic approach*** must include:

- assessment i.e. call out and response, route, scene, liaison, casualties
- positioning of vehicle i.e. dangers, access and casualties
- procedures i.e. dangers, casualty protection, extrication, warning devices and lighting

***Potential hazards and associated risks*** may include:

- moving machinery
- electrocution
- industrial traffic (forklifts etc.)
- various industrial work environments

***Communication*** may include:

- radio communications (radio, telephones and information technology)
- warning signals

***Other relevant personnel*** may include:

- ambulance officers
- company personnel
- emergency services personnel
- household occupants
- police
- utility technicians

***Rescue scene reconnaissance*** may include:

- collecting relevant information about casualty/s and hazards
- isolating and eliminating utilities
- surveying the incident scene

***Situational and environmental hazards*** may include:

- adverse weather
- biological hazards such as body fluids and tissue
- convergence
- dangerous goods and hazardous substances
- difficult terrain
- dusts
- electrical and mechanical moving machinery
- electricity
- equipment power/drive systems
- gas
- mobile property
- sharp and jagged objects
- slippery surfaces

- vehicle fuel systems
- water and sewerage utilities

***Treating hazards*** may include:

- eliminating the hazard
- isolating the area/source
- stabilising overhead hazards
- using atmospheric monitoring equipment
- using PPE and clothing

***Potential dangers*** may include:

- electrical hazards
- fuel
- stability and location of machinery

***Accessing the scene*** may include:

- allowing clear access and egress for other responding vehicles and ambulances
- establishing a clear area to manoeuvre personnel, stretchers

***Limitations of operating equipment*** may include:

- access to incident site
- equipment capacities and limitations

***Impact effects on occupancy areas*** may include:

- disconnection of essential services

***Potential effects on casualty*** may include:

- confinement without entrapment (elevators)
- limb entrapment

***Stabilising the occupancy area*** may include:

- isolating utilities (power, gas, water etc.)
- meshing gears on machinery

***Hygiene precautions*** may include:

- avoiding contact with body fluids and tissue
- decontaminating equipment at scene and placing protective clothing and gloves in a sealed bag for special dry cleaning
- using correct personal protective clothing and equipment
- using surgical gloves under protective work gloves
- washing hands
- wearing appropriate protective clothing

***Gaining access to entrapped casualty/s*** may include:

- accessing elevator shaft
- disassembling of machinery
- managing moving machinery
- managing utilities supplies
- removing domestic plumbing equipment

***Primary survey:***

- is a methodical process used to quickly identify immediate life threatening injuries and conditions that require intervention
- should be completed promptly upon initial patient contact if no immediate life threatening injuries and conditions requiring intervention are found during

***Treating located casualty/s*** may include:

***Removing casualty/s*** may include:

***Preserving the scene*** may include:

***Recovering, cleaning and servicing of equipment*** may include:

***Signs and symptoms of operational stress*** may include:

***Debriefings*** may include:

***Documentation*** may include:

***Exposure records*** may include:

- the survey
- should be completed as soon as possible if it is interrupted
- should only be interrupted when:
  - life threatening condition is identified and immediate life saving interventions are initiated
  - scene conditions require that the patient be moved immediately due to danger to first emergency care responders or the patient
- first aid
- rescue/spine boards
- stretchers
- team stretcher handling
- defining and redefining scene boundary
- preserving evidence and related legal requirements
- securing the scene
- contaminated clothing and equipment cleaned or disposed
- equipment inspected for damage and serviceability
- inventories checked
- critical incident stress
- dehydration
- fatigue
- hypothermia
- critical incident stress debriefing
- operational analysis
- post-incident analysis
- performance evaluations
- AIRS/coroner report
- near miss injury report
- notebooks completed
- operational debrief
- post operational analysis
- reporting form that documents any exposure that may result in a short- or long-term associated injury such as:
  - hazardous substances, such as dust, vapours, fumes, radiation and chemical substances
  - heavy repetitive work over long periods of time
  - lifting heavy loads

- noise
- psycho-social hazards (e.g. critical incident stress)

## **Unit Sector(s)**

Not applicable.