



Australian Government

Department of Education, Employment and Workplace Relations

PUASAR007B Undertake structural collapse rescue

Revision Number: 1

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Modification History

Not applicable.

Unit Descriptor

Unit Descriptor

This unit covers the competency to undertake structural collapse operations as a member of a rescue team.

Application of the Unit

Application of the Unit

The application of this unit in the workplace - the environments, complexities and situations involved - will be written during Phase II of the Review of the PUA00 Public Safety Training Package.

This text will be useful for the purposes of job descriptions, recruitment advice or job analysis; where possible, it will not be too job specific to allow other industries to import it into other Training Packages, where feasible.

Licensing/Regulatory Information

Not applicable.

Pre-Requisites

Prerequisite Unit/s

PUASAR001B Participate in a rescue operation

Employability Skills Information

Employability Skills

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 Required Skills and Knowledge and/or the Range Statement. Assessment of performance is to be consistent with the Evidence Guide.

Elements and Performance Criteria

ELEMENT

PERFORMANCE CRITERIA

1. Prepare for structural collapse operation

- 1.1 Operation and task information is obtained and analysed
- 1.2 **Rescue resources** are identified and selected based on incident information and cross-checked to ensure they are ready for use
- 1.3 Personal **protective equipment** is selected relevant to the nature of the structural collapse operation

2. Assess and manage structural collapse scene

- 2.1 **Situational and environmental hazards** are assessed, minimised, controlled, marked and constantly monitored
- 2.2 Physical features of structural collapse are assessed before deploying rescue resources
- 2.3 Scene is managed to control access and maintain a safe and effective operational environment
- 2.4 Communication with other personnel on site is established and maintained
- 2.5 Site of structural collapse is sectorised and boundaries are defined
- 2.6 Structural collapse marking system is implemented

3. Determine location and condition of casualties

- 3.1 Reconnaissance of incident scene is undertaken
- 3.2 Evidence of location of casualties within collapsed structure is collected and reported
- 3.3 Appropriate resources are used for surface or lightly trapped casualties
- 3.4 The condition of surface or lightly trapped casualties and nature of entrapment is ascertained where possible
- 3.5 Search marking systems are utilised

4. Gain access to casualties

- 4.1 Techniques and equipment are employed to stabilise and make safe the incident scene
- 4.2 Located casualties are treated in consultation with medical personnel in accordance with organisational policies

5. Remove casualties

- 5.1 Entrapped casualties are released, treated and stabilised in accordance with organisational procedures
- 5.2 Casualties are removed from scene using **recognised techniques**

ELEMENT**PERFORMANCE CRITERIA****6. Terminate rescue operations**

- 5.3 Evidence of casualty's identity is collected and processed according to agreed procedures
- 5.4 Appropriate actions are taken to preserve incident scene where possible
- 6.1 Equipment is recovered, cleaned and serviced according to organisational standards 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
- 6.4 Exposure records are completed

Required Skills and Knowledge

REQUIRED SKILLS AND KNOWLEDGE

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

Required Skills

- ability to use trapped person locating devices
- air bags and other lifting equipment
- cutting reinforced concrete
- debris tunnelling shoring and propping
- national marking systems
- props
- safe and effective use of generators and lighting equipment
- shoring and tunnelling techniques
- use of appropriate rescue equipment
- use of atmospheric monitoring equipment
- use of concrete cutting, coring, breaching and lifting equipment
- use of heavy duty cutting, breaking and lifting equipment
- use of jacks
- use of ladders
- use of ropes, anchors and rigging systems
- use of visual and audible locating devices
- working in teams

Required Knowledge

- agency incident command and control systems
- confined spaces legislation and procedures
- coronial and other legal documentation requirements
- disaster victim identification procedures
- equipment capabilities and limitations
- medical considerations for structural collapse casualties
- operational briefing and debriefing procedures
- principles of structural collapse operations
- procedures for atmospheric monitoring
- relationship of local USAR teams with local rescue response and emergency management
- relevant OH&S principles and procedures
- signs and symptoms of operational stress
- types of construction and collapse

Evidence Guide

EVIDENCE GUIDE

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

It is essential for this unit that competence be demonstrated in safe use of tunnelling, shoring and propping techniques; safe use of breaching, coring, cutting and lifting of reinforced concrete

Atmospheric monitoring techniques to AS2865-1995

Extrication of casualty minimising further injury to self or others

Application of safe work practices

Consistency in performance

Evidence should be gathered over a period of time in a range of actual or simulated workplace environments

Context of and specific resources for assessment**Context of assessment**

Evidence is gathered in an actual or simulated structural collapse and rescue incident over a minimum of four shift changes

Specific resources for assessment

Assessment of this competency requires access to an appropriate training location/venue; organisation's rescue equipment and personnel for team-based activities

Guidance information for assessment

Information that will assist or guide assessment will be written during Phase II of the Review of the PUA00 Public Safety Training Package.

Range Statement

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.

Structural collapse rescue is defined as

the mobilisation of resources required to safely and expeditiously locate and remove trapped and often injured victims from partially or totally collapsed structures or environments and the provision of emergency care in doing so

Rescue resources may include

hand tools
atmosphere monitoring equipment
concrete cutters and corers
trained dogs
aerial ladders
platforms
bulldozers
bob cats
cranes
back hoes
generators
hydraulic jacks
lights and towers
wire rubble baskets
acoustic devices
fibre-optic cameras
time-lapse cameras
search cameras
thermal imaging cameras
infra-red cameras
concrete cutting chain saws
air-hammers
drills
lighting

RANGE STATEMENT

	ropes
	bolt cutters
	wheel barrows
	buckets
	communications
	portable toilets
	tents
	heaters
Situational and environmental hazards may include	below debris hazards
	surface hazards
	overhead hazards
	structural and terrain instability
	dangerous goods and hazardous substances
	utilities
	irrespirable atmosphere
	adverse weather conditions
Recognised techniques may include	breaching
	concrete coring
	shoring and tunnelling
	concrete slab removal
	steel cutting
Operational documentation may include	site sectorisation plan
	memorandums of understanding
	equipment
	running and repair logs
	notes or sketches and other relevant information required for potential coronal or other legal proceedings
	incident reports
	communication logs
	injury register
Protective equipment may include	respiratory protection

RANGE STATEMENT

ear
eye and head protection
knee pads
appropriate footwear
overalls
wet weather gear

Unit Sector(s)

Not applicable.

Corequisite Unit/s**Co-requisite Unit/s**

PUATEA002B Work autonomously