RIIERR307A Extricate casualties from underground incident

Release: 1

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Modification History

Not applicable.

Unit Descriptor

This unit covers extricating casualties from underground incident in metalliferous mines.   It includes: preparing for extrication; establishing the extrication system; stabilising the casualty; transporting the casualty to a place of safety; and restoring and refurbishing equipment.

Application of the Unit

This unit is appropriate for those working in operational roles, in underground mines within:

- Metalliferous mining

Licensing/Regulatory Information

Refer to Unit Descriptor.

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 performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the required skills and knowledge section and the range statement. Assessment of performance is to be consistent with the evidence guide.

Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
1. Prepare for extrication of casualties	1.1. Access, interpret and apply *compliance documentation* relevant to extricating casualties from underground incident in metalliferous mines
	1.2. Interpret *incident* information to determine location, type of incident and personnel involved and record on the mine plan
	1.3. Fit appropriate *safety equipment* and navigate to incident site according to site and standard operating procedures
	1.4. Identify, address and report potential *hazards*, and risks to rescue team members and entrapped personnel
	1.5. Assess the possible type and extent of injuries to entrapped personnel
	1.6. Assess the incident and determine the appropriate method of extricating casualties
	1.7. Determine extrication procedures and strategy and develop an *action plan* for extrication operations
2. Establish extrication system and extricate casualty	2.1. Identify and obtain required *extrication equipment* and check for operational ability
	2.2. Set up equipment to extricate casualty according to manufacturer's specifications and site and safe operating procedures
	2.3. Test the extrication system and equipment to manufacturer's specifications and safe operating procedures before extrication operations are undertaken
	2.4. Employ equipment and techniques to extricate people according to manufacturer's specifications and site and safe operating procedures
	2.5. Maintain *communication* with other team members and *Incident Control* on condition of casualties and status of extrication operations
3. Stabilise casualty	3.1. Perform Primary and Secondary assessments to check casualty's condition to recognised life support guidelines
	3.2. Apply identified life support requirements

	3.3. Continuously monitor casualty and record vital signs
	3.4. Communicate casualty information to Incident Control and/or *medical personnel*
4. Transport casualty to a place of safety	4.1. Evaluate the need for, and equip casualties with escape apparatus
	4.2. Assess the availability and adequacy of transport resources and obtain additional assistance and resources where required
	4.3. Prepare stretcher patients and other casualties for safe transport to a place of safety according to site and safe operating procedures
	4.4. Monitor casualties and check vital signs during transport
	4.5. Employ techniques and procedures to transport casualties to a place of safety according to site and safe operating procedures
	4.6. Ensure that casualties are handed over to medical professionals
	4.7. Communicate status of incident site, casualties, personnel and equipment to Incident Control
5. Restore and refurbish equipment	5.1. Inspect all equipment used for any damage sustained in the extrication operation
	5.2. Repair or replace defective equipment to meet manufacturer's specifications or Australian standards
	5.3. Tag and quarantine unusable equipment
	5.4. *Return* the rescue system and *equipment to operational readiness* according to manufacturer's specifications and/or Australian standards

SkillsDMC

Required Skills and Knowledge

This section describes the skills and knowledge required for this unit.

Required skills

Specific skills are required to achieve the performance criteria in this unit, particularly for the application in the various circumstances in which this unit may be applied. This includes the ability to carry out the following as required extricate casualties from underground incident in metalliferous mines:

- apply legislative, organisation and site requirements and procedures
- locate extrication equipment on mine site
- navigate in underground mines
- read maps and interpret symbols
- apply call-out response procedures
- work as a member of a team
- locate and demonstrate the correct use of ladders and other devices
- operate emergency communications systems
- interpret and use signals
- access, interpret and apply technical and safety information
- apply diagnostic/faultfinding techniques
- apply environmental compliance requirements
- apply isolation procedures
- use hand and power tools

Required knowledge

Specific knowledge is required to achieve the Performance Criteria of this unit, particularly its application in a variety of circumstances in which the unit may be used. This includes knowledge of the following, as required to extricate casualties from underground incident in metalliferous mines:

- extrication equipment - types, construction and operation
- manufacturer's recommendations for safe use and care of extrication equipment
- basic life support
- primary assessment/secondary assessment
- hazard/risk management principles and practices (including assessment and control)
- types and availability of transport resources
- types and availability of medical facilities
- lashing techniques for stretchers
- systems and methods of extrication
- location of extrication equipment
- inspection and refurbishment of extrication equipment
- hazards of underground mine operations

- hazards associated with large mobile mine equipment
- mine traffic procedures and rules
- communication systems and protocols
- infectious disease and waste management

Evidence Guide

The evidence guide provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge, range statement and the Assessment Guidelines for the Training Package.

Overview of assessment	
Critical aspects for assessment and evidence required to demonstrate competency in this unit	The evidence required to demonstrate competency in this unit must be relevant to worksite operations and satisfy all of the requirements of the performance criteria, required skills and knowledge and the range statement of this unit and include evidence of the following: - knowledge of the requirements, procedures and instructions for extricating casualties from underground incident in metalliferous mines - implementation of requirements, procedures and techniques for the safe, effective and efficient extricating of casualties from underground incident in metalliferous mines - working with others to extricate casualties from underground incident in metalliferous mines that meets all of the required outcomes - consistent timely extrication of casualties from underground incident in metalliferous mines that safely, effectively and efficiently meets the required outcomes
Context of and specific resources for assessment	- This unit must be assessed in the context of the work environment. Where personal safety or environmental damage are limiting factors, assessment may occur in a simulated environment provided it is realistic and sufficiently rigorous to cover all aspects of workplace performance, including task skills, task management skills, contingency management skills and job role environment skills. - The assessment environment should not disadvantage the participant. For example, language, literacy and numeracy demands of assessment should not be greater than those required on the job. - Customisation of assessment and delivery environment to sensitively accommodate cultural diversity. - Aboriginal people and other people from a non

	English speaking background may have second language issues. • Assessment of this competency requires typical resources normally used in the work environment. Selection and use of resources for particular worksites may differ due to site circumstances. • Where applicable, physical resources should include equipment modified for people with disabilities. • Access must be provided to appropriate learning and/or assessment support when required.

Method of assessment	This unit may be assessed in a holistic way with other units of competency. The assessment strategy for this unit must verify required knowledge and skill and practical application using more than one of the following assessment methods:
	• written and/or oral assessment of the candidate's required knowledge
	• observed, documented and/or first hand testimonial evidence of the candidate's:
	    • implementation of appropriate requirement, procedures and techniques for the safe, effective and efficient achievement of required outcomes
	    • consistently achieving the required outcomes
	• first hand testimonial evidence of the candidate's:
	    • working with others to extricate casualties from underground incident in metalliferous mines

Guidance information for assessment	Consult the SkillsDMC User Guide for further information on assessment including access and equity issues.

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, if used in the performance criteria, is detailed below. Essential operating conditions that may be present with training and assessment (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) may also be included.

Relevant compliance documentation may include:	• legislative, organisation and site requirements and procedures • manufacturer's guidelines and specifications • Australian standards • code of practice • Employment and workplace relations legislation • Equal Employment Opportunity and Disability Discrimination legislation
Incidents may include those associated with:	• heights • depths • plant and equipment entrapment • light vehicles • heavy vehicles • mining equipment • transport equipment • shafts and winders • toxic environment
Safety equipment may include:	• breathing apparatus • industrial clothing • thermal suits • face shields • eye protection • respiratory protection • safety footwear
Hazards may include:	• environmental • electrical • smoke • chemicals • toxic atmosphere/gases • loss of visibility • volatile substances • heat • heights/depths

	• ground/wall collapse • unstable ground • engulfment • bulk fuel storage • fuel transportation • unsafe working practices • explosives
Action plans may include:	• extrication equipment requirements • personnel capability and numbers • duties assigned to extrication and support personnel • extrication strategy and procedures • safety equipment requirements • communications methods and protocols • risk assessment requirements • emergency procedures • life support arrangements • transport • contingency plans
Extrication equipment may include:	• hydraulic rescue equipment • pneumatic lifting equipment • crowbars • hand tools • hacksaws • abrasive saws • cutting equipment • Tirfor • oxygen therapy/resuscitation equipment • rescue boards • First Aid equipment • roping equipment • ladders
Communications may include:	• reports • 2-way radio • telephone • mobile phone • hand signals • runners • light signals
Incident Control:	• has overall planning, approval and control of an incident

SkillsDMC

Medical personnel may include:	• doctors • ambulance officers • paramedics • site medical officer • Royal Flying Doctor Service
Returning equipment to operational readiness may include:	• inspection • cleaning • repair • replacement/re-fill

Unit Sector(s)

Emergency Response and Rescue

Competency field

Refer to Unit Sector(s).

Co-requisite units

Not applicable.