



Australian Government

RIIERR306E Conduct underground searches

Release: 1

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Modification History

This unit replaces RIIERR306D Conduct underground search. Minor endorseable amendments have been made to Elements, Performance Criteria, Foundation Skills, Performance Evidence and Knowledge Evidence to better reflect current industry practices and clarify training outcomes.

Application

This unit describes the skills and knowledge required to plan and conduct underground searches and manage unplanned events in mining operations.

It applies to those who work in operational roles. They generally work in teams and have some responsibility for the outcomes of others.

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

Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Plan and prepare for underground search	1.1 Access and interpret underground search documentation 1.2 Obtain, interpret, clarify and confirm work requirements 1.3 Identify and assess potential risks, hazards and environmental issues and implement control measures 1.4 Select and wear personal protective equipment appropriate for work activities 1.5 Receive and analyse information and clarify factors to be considered in the search plan 1.6 Identify, liaise and clarify roles with relevant personnel 1.7 Identify and access required equipment 1.8 Communicate and coordinate activities with others 1.9 Document identified search strategy, and plot search patterns and routes on mine plan
2. Conduct search	2.1 Define possible and probable search areas based on mine configuration and work activities

ELEMENT	PERFORMANCE CRITERIA
	2.2 Conduct risk assessment and identify the necessary controls measures 2.3 Identify and ensure the search period/area does not exceed air/oxygen working duration and search personnel fitness 2.4 Establish and maintain communication systems with relevant personnel during the search 2.5 Apply search methodology using identified sequence/pattern and using appropriate techniques 2.6 Manoeuvre hostile ground using required equipment, techniques and procedures 2.7 Maintain physical contact with other search team members at all times 2.8 Mark route to allow safe egress from mine and/or allow a back-up team to locate the search team
3. Manage unplanned event or change in circumstances	3.1 Identify and evaluate unplanned events and changes/variances in conditions or circumstances 3.2 Implement and monitor procedures to address the unplanned event 3.3 Communicate details of the unplanned event or changes in circumstances to relevant personnel for advice on actions to be taken 3.4 Communicate requests for further assistance or advice of withdrawal to required personnel
4. Finalise search	4.1 Negotiate the conclusion of the search in consultation with relevant personnel 4.2 Collect, document and store all relevant evidence or information 4.3 Participate in incident debrief 4.4 Complete required written reports according to workplace policies and procedures 4.5 Review search operation and recommend improvements

Foundation Skills

This section describes those language, literacy, numeracy and employment skills that are essential to performance but not explicit in the performance criteria.

Skill	Description
Problem solving	Applies problem solving processes to identify risks, evaluate options and determine solutions
Writing	Prepares specific information that complies with a range of regulatory requirements, using sector-specific terminology
Oral communication	Conveys information and requirements clearly, and listens carefully
Reading	Identifies and interprets relevant information from workplace procedures, documentation, legislation and regulations

Unit Mapping Information

Supersedes and is equivalent to RIIERR306D Conduct underground search.

Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=88a61002-9a21-4386-aaf8-69c76e675272>

Assessment Requirements for RIIERR306E Conduct underground searches

Modification History

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Performance Evidence

The candidate must demonstrate the ability to complete the tasks outlined in the elements, performance criteria and foundation skills of this unit, including evidence of the ability to:

- conduct underground searches in a manner that safely, effectively and efficiently meets all of the required outcomes on at least two occasions, including:
 - developing and applying contingency plans
 - reading mine plans and navigating in the mine
 - reading maps and interpreting symbols
 - operating gas testing and monitoring instruments
 - wearing and using escape apparatus
 - operating extrication equipment
 - preparing search methodology using identified sequences
 - marking the route for safe egress
 - communicating requests for further assistance or advice of withdrawal in changes to conditions
 - completing written report of search activity and outcomes.

During the above, the candidate must:

- locate and apply relevant documentation, policies and procedures
- works effectively with others to undertake and complete the conducting of underground searches that meets all the required outcomes, including:
 - complying with written and verbal reporting requirements and procedures
 - communicating clearly and concisely with others to receive and clarify work instructions
 - communicating clearly and concisely with others to coordinate work activities.

Knowledge Evidence

The candidate must be able to demonstrate knowledge to complete the tasks outlined in the elements, performance criteria and foundation skills of this unit, including knowledge of:

- types and causes of hazards and incidents in underground mines
- effects of hot and humid atmospheres in underground mines

- location and distribution of caches
- trigger points to initiate emergency response to alarms
- location and purpose of a place of safety
- guidance system and marker uses
- key components and requirements of site emergency plans
- implications of types of adverse environmental conditions
- escape routes locations and alternative escape routes
- mine ventilation systems functions
- types and effects of mine gases
- rescue team structure, roles and responsibilities
- operation and limitations of breathing apparatus
- standby/emergency procedures for incident control
- ground support types and construction
- search procedures and techniques
- roles of key external agencies
- key observation techniques.

Assessment Conditions

Mandatory conditions for assessment of this unit are stipulated below.

The assessment must:

- include access to:
 - site plans
 - breathing apparatus
 - personal protective equipment required for the activities described in the performance evidence
- be conducted in a safe environment
- be assessed in context of this sector's work environment
- be assessed in compliance with relevant legislation and regulations and using policies, procedures, processes and operational manuals directly related to the industry sector for which it is being assessed
- confirm consistent performance can be applied in a range of relevant workplace circumstances.

Where personal safety or environmental damage are limiting factors, assessment may occur in a simulated work environment* provided it is realistic and sufficiently rigorous to cover all aspects of this sector's workplace performance, including environment, task skills, task management skills, contingency management skills and job role environment skills.

Assessor Requirements

Assessors must be able to clearly demonstrate current and relevant industry knowledge and experience to satisfy the mandatory regulatory standards as set out in the Standards for Registered Training Organisations (RTOs) 2015/Australian Quality Training Framework mandatory requirements for assessors current at the time of assessment and any relevant licensing and certification requirements. This includes:

- vocational competencies at least to the level being delivered and assessed
- current industry skills directly relevant to the training and assessment being provided
- current knowledge and skills in vocational training and learning that informs their training and assessment
- formal relevant qualifications in training and assessment
- having knowledge of and/or experience using the latest techniques and processes
- possessing a high level of RII training product knowledge
- having an understanding and knowledge of legislation and regulations relevant to the industry and to employment and workplaces
- demonstrating the performance evidence, and knowledge evidence outlined in this unit of competency, and
- the minimum years of current** work experience after competency has been obtained as specified below in an industry sector relevant to the outcomes of the unit.

It is also acceptable for the appropriately qualified assessor to work with an industry expert to conduct assessment together and for the industry expert to be involved in the assessment judgement. The industry expert must hold the relevant vocational competencies and have current industry skills directly relevant to the training and assessment being provided and must work alongside a trainer and/or assessor to conduct the assessment. This means the industry subject matter expert should hold the unit being assessed (or an equivalent unit), and must also demonstrate skills and knowledge from the minimum years of current work experience after competency has been obtained as specified below, including time spent in roles related to the unit being assessed:

Industry sector	AQF indicator level***	Required assessor or industry subject matter expert experience
Drilling, Metalliferous Mining, Coal Mining, Extractive (Quarrying) and Civil Infrastructure	1	1 year
	2	2 years
Drilling, Coal Mining, Extractive (Quarrying), Metalliferous Mining and Civil Infrastructure	3-6	3 years
Other sectors	Where this unit is being assessed outside of the resources and infrastructure sectors assessor and/or industry subject matter expert experience should be in-line with industry standards for the sector in which it is being assessed and where no industry standard is specified should comply with any relevant regulation.	

*Guidance on simulated environments has been stipulated in the RII Companion Volume Implementation Guide located on VETNet.

**Assessors can demonstrate current work experience through employment within industry in a role relevant to the outcomes of the unit; or, for external assessors this can be demonstrated through exposure to industry by conducting a minimum number of site assessments as determined by the relevant industry sector, across various locations.

*** While a unit of competency does not have an AQF level, where a unit is being delivered outside of a qualification the first numeric character in the unit code should be considered as the AQF indicator level for assessment purposes.

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