



Australian Government

RIIERR309D Establish and operate from fresh air base

Release: 2

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Modification History

Release	Comment
1	This unit replaces RIIERR309A Establish and operate from fresh air base.
2	Performance Criteria numbering corrected. Required frequency and volume of evidence amended in Performance evidence. Substantial amendments made in Assessment Conditions field, including: references to Industry Sectors, assessor and subject matter expert experience requirements, how assessment should be conducted and what it should confirm.

Application

This unit describes a participant's skills and knowledge required to establish and operate from a fresh air base in Metalliferous mining.

This unit is appropriate for those working in operational roles.

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

Unit Sector

Metalliferous mining (Underground)

Elements and Performance Criteria

1. Plan and prepare to establish a fresh air base	1.1 Access, interpret and apply establishing a fresh air base documentation and ensure the work activity is compliant 1.2 Obtain, read, interpret, clarify and confirm work requirements 1.3 Identify and address potential risks, hazards and environmental issues and implement control measures 1.4 Select and wear personal protective equipment appropriate for work activities 1.5 Communicate and coordinate activities with others prior to, during and on completion of the work activity 1.6 Develop strategies for the establishment of a fresh air base 1.7 Access, interpret and analyse mine plans, characteristics, data
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	and reports, and locate and assess potential affected zones 1.8 Confirm affected fresh air zones through atmospheric testing 1.9 Identify and organise/obtain fresh air base resources 1.10 Test all fresh air base resources are fit for service 1.11 Test selected testing and monitoring instruments are fit for service 1.12 Select and coordinate fresh air base personnel
2. Establish the fresh air base	2.1 Transport and install allocated fresh air base resources 2.2 Test site gas levels and ensure they are within specified limits 2.3 Inspect roof, sides and floor and ensure stability and safety 2.4 Install monitoring equipment 2.5 Monitor integrity of atmosphere and identify atmospheric changes 2.6 Maintain fresh air base in respirable air 2.7 Ensure escape strategy and equipment availability and coordinate fresh air base escape in emergency conditions 2.8 Identify and install communication equipment in fresh air base and test for effective, clear and reliable operation
3. Operate from fresh air base	3.1 Monitor atmosphere and ensure compliance with designated limits, record data at recommended intervals 3.2 Communicate atmosphere conditions to Incident Control and receive instructions 3.3 Relocate fresh air base 3.4 Inform rescue team of fresh air base relocation and reason for decision 3.5 Control and monitor rescue team activities and movements and ensure team safety 3.6 Identify available fresh air base equipment and maintain in a state of readiness 3.7 Brief, confirm, record information and dispatch rescue team 3.8 Coordinate and control ancillary personnel and operations 3.9 Maintain communications with teams and Incident Control 3.10 Carry out handover briefings with oncoming personnel and ensure continuity of operations

Foundation Skills

Foundation skills essential to performance are explicit in the performance criteria of this unit. Further information is available in the Resources and Infrastructure Industry Training Package Companion Volume.

Unit Mapping Information

RIIERR309A Establish and operate from fresh air base

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 RIIERR309D Establish and operate from fresh air base

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Performance Evidence

Evidence is required to be collected that demonstrates a candidate's competency in this unit. Evidence must be relevant to the roles within this sector's work operations and satisfy all of the requirements of the performance criteria of this unit and include that the candidate:

- locates and applies relevant documentation, policies and procedures
- works effectively with others to undertake and complete the establishment of and operating from a fresh air base 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
 - operating emergency communication systems
- demonstrates completion of establishing and operating from a fresh air base that safely, effectively and efficiently meets all of the required outcomes on more than one (1) occasion including:
 - reading mine plans and navigating in mines
 - reading maps and interpreting symbols
 - identify and select fresh air base resources
 - establishing, relocating and working from a fresh air base
 - operating atmospheric testing and monitoring instruments
 - wearing and using escape apparatus
 - establishing search patterns and marking underground routes
 - conducting handover briefings with oncoming personnel to ensure continuity of operations

Knowledge Evidence

The candidate must demonstrate knowledge in establishing and operating from a fresh air base through:

- the types and causes of hazards and incidents in underground mines
- accessing and interpreting geological and survey data
- the effects of hot and humid atmospheres
- the location and distribution of caches
- the trigger points to initiate emergency response to alarms
- the location and purpose of a place of safety
- identifying and using guidance systems and markers
- site emergency plans
- the implications of types of adverse environmental conditions
- the location of escape routes and alternative escape routes
- the functions of mine ventilation systems
- the types and effects of mine gases
- the rescue team structure, roles and responsibilities
- the role and responsibilities of the Fresh Air Base Controller
- the structure, role and responsibilities of Incident Control
- the roles of external agencies
- the operation and limitations of breathing apparatus
- identifying and complying with standby/emergency procedures for fresh air base
- ignition sources
- types of fire and fire control methods
- factors affecting oxygen/air consumption

Assessment Conditions

- An assessor of this unit must satisfy the requirements of the NVR/AQTF or their successors; and Industry regulations for certification and licensing; and,
- this unit is best assessed in the context of this sector's 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 this sector's workplace performance, including environment, task skills, task management skills, contingency management skills and job role environment skills; and,
- this unit must be assessed in compliance with relevant legislation/regulation and using policies, procedures, processes and operational manuals directly related to the industry sector for which it is being assessed; and,
- assessment may be conducted in conjunction with the assessment of other Units of Competency; and,
- assessment must confirm consistent performance can be applied in a range of relevant workplace circumstances; and,

- assessors must demonstrate the performance evidence, and knowledge evidence as outlined in this Unit of Competency, and through the minimum years of current* work experience specified below in an Industry sector relevant to the outcomes of the unit; or,
- where the assessor does not meet experience requirements a co-assessment or partnership arrangement must exist between the qualified assessor and an Industry subject matter expert. The Industry subject matter expert should hold the unit being assessed (or an equivalent unit) and/or demonstrate equivalence of skills and knowledge at the unit level. An Industry technical expert must also demonstrate skills and knowledge from the minimum years of current work experience specified below in the Industry sector, including time spent in roles related to the unit being assessed; and,
- assessor and Industry subject matter expert requirements differ depending on the Australian Qualifications Framework Level (AQF) of the qualification being assessed and/or Industry Sector as follows:

Industry sector	AQF** Level	Required assessor or Industry subject matter expert experience
Drilling, Metalliferous Mining, Coal Mining, Extractive (Quarrying) and Civil Construction	1	1 Year
	2	2 Years
Drilling, Coal Mining and Extractive (Quarrying)	3-6	3 Years
Metalliferous Mining and Civil Construction	3-6	5 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.	

*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 frequent site assessments across various locations.

**Where a unit is being delivered outside of a Qualification the first numeric character in the Unit code should be considered to indicate the AQF level

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