



Australian Government

RIIMEX404E Apply and monitor systems for stable mining

Release: 1

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Modification History

Release	Comments
Release 1	This version first released with RII Resources and Infrastructure Industry Training Package Version 5.0.

Application

This unit describes the skills and knowledge required to apply and monitor systems for stable mining in coal and metalliferous mining. It includes installing, monitoring and assessing ground support systems and scheduling and carrying out inspection, repair and maintenance activities.

This unit is appropriate for those working in supervisory roles. They generally perform a broad range of operational activities in their area of responsibility and are responsible for monitoring a safe work environment.

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

Unit Sector

Coal mining

Metalliferous mining

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 to apply systems for stable mining	1.1 Obtain, interpret, clarify and confirm work requirements 1.2 Access, interpret and apply systems for stable mining operations documentation and confirm work activity is compliant 1.3 Identify and address potential risks, hazards and environmental issues and implement control measures according to legislative and site requirements 1.4 Obtain and interpret emergency procedures and identify steps required to respond to emergencies 1.5 Communicate and coordinate activities within scope of own role

ELEMENT	PERFORMANCE CRITERIA
	1.6 Identify, obtain and allocate resources required to apply design system 1.7 Identify training needs of personnel involved according to design system and site requirements and within scope of own role
2. Apply the design system	2.1 Communicate, apply and monitor approved design according to design system and site requirements 2.2 Communicate and apply primary and secondary support systems according to design system and site requirements 2.3 Identify and assess mining constraints impacting maintenance of stable mining structure according to design system and site requirements 2.4 Monitor and assess installation of ground support systems according to design system and site requirements 2.5 Identify system failures and assess according to design system and site requirements 2.6 Apply and monitor mining sequences according to design system and site requirements 2.7 Identify and assess virgin and induced stress control methods site requirements 2.8 Monitor hazards and risks and confirm safe operation of plant and equipment 2.9 Contribute to systems audit and review requirements within scope of own role
3. Apply design system monitoring and maintenance procedures	3.1 Schedule and carry out inspection, repair and maintenance activities according to manufacturer specifications and site requirements 3.2 Record, report and review maintenance and monitoring requirements and activities according to site requirements 3.3 Provide recommendations in terms of safety, efficiency and effectiveness of systems for stable mining within scope of own role

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
Numeracy	Calculates resourcing requirements
Oral communication	Conveys information and requirements clearly and listens actively

SKILL	DESCRIPTION
Reading	Identifies and interprets relevant information from workplace procedures, documentation and legislation

Unit Mapping Information

Supersedes and is equivalent to RIIMEX404D Apply and monitor systems for stable mining.

Links

Companion Volume Implementation Guide is found on VETNet -

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

Assessment Requirements for RIIMEX404E Apply and monitor systems for stable mining

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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:

- apply and monitor systems for stable mining on at least two occasions, including:
 - assessing and assigning appropriate plant and equipment
 - developing and administering work plans
 - monitoring installation of ground support systems and making required adjustments for variances and non-achievement of outcomes
 - assessing outcomes, forming reasoned recommendations and completing reports.

During the above, the candidate must:

- locate and apply relevant legislation, documentation, policies and procedures and confirm work activity is compliant
- implement requirements, procedures and techniques for applying and monitoring of systems for stable mining, including:
 - analysing hazards and risks, and implementing control measures
 - accessing and analysing archival and historical mine management information relating to mine and failure mode of mine structures
 - interpreting and applying design criteria for mine management
 - conducting and reporting on audits
 - identifying and evaluating geological and geotechnical information
- work effectively with others to apply and monitor systems for stable mining in a manner that meets required outcomes, including:
 - complying with reporting requirements and procedures
 - providing leadership and direction to others
 - communicating clearly and concisely with others to receive and clarify work instructions
 - communicating clearly and concisely with others to resolve coordination requirements prior to commencing and during 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:

- key procedures and documentation required to apply and monitor systems for stable mining, including those relating to:
 - maintenance of plant, equipment and tools
 - risk management processes
 - work health and safety
- types, characteristics, uses and limitations of mining systems and structures, including:
 - mine plans
 - ventilation systems
 - gas monitoring systems
 - strata supports systems
 - safety management systems
- types, characteristics, uses and limitations of stable mining structure controls
- principles and techniques for identifying and managing environmental issues, risks and hazards and implementing control measures
- principles and techniques for assessing capabilities and applications of plant and equipment relating to ground support systems
- techniques for identifying individual training needs
- principles, processes and techniques for emergency responses, evacuations and disaster planning
- techniques for coordinating and communicating job activities with others.

Assessment Conditions

Mandatory conditions for assessment of this unit are stipulated below. The assessment must:

- include access to:
 - design system documentation for stable mining
- be conducted in a safe environment; and,
- be assessed in the context of this sector's work environment; and,
- be assessed in compliance with relevant legislation/regulation and using policies, procedures and processes directly related to the industry sector for which it is being assessed; and,
- 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 the required 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 have current industry skills directly relevant to the training and assessment being provided. This means the industry subject matter expert must 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 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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