



Australian Government

RIIMCU506E Implement the strata management plan

Release: 1

RIIMCU506E Implement the strata management plan

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 implement strata management plans in coal mining. It includes implementing and reviewing stable structure controls, strata monitoring and testing systems and systems maintenance programs and procedures.

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

Licensing, legislative and certification requirements that apply to this unit can vary between states, territories and industry sectors. Users must check requirements with relevant body before applying the unit.

Unit Sector

Coal mining (underground)

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 implement strata management plan	1.1 Access, interpret and implement strata management plan implementation documentation and confirm work activity is compliant 1.2 Identify and communicate the roles and responsibilities, as specified in the strata management plan 1.3 Identify, forecast, schedule and record resources required to implement strata management plan 1.4 Identify training needs for personnel involved according to strata management plan and within scope of own role 1.5 Identify and interpret risks associated with unstable mining

ELEMENT	PERFORMANCE CRITERIA
	structures
2. Implement strata management plan	2.1 Implement system of mining according to strata management plan 2.2 Communicate primary and secondary support requirements according to strata management plan 2.3 Implement and communicate mining sequences according to strata management plan 2.4 Obtain and allocate resources according to strata management plan 2.5 Implement maintenance program according to strata management plan 2.6 Implement strata monitoring and testing system according to strata management plan 2.7 Monitor procedures according to strata management plan 2.8 Implement reporting and recording systems according to strata management plan and legislative requirements 2.9 Implement emergency response and evacuation plan according to strata management plan and site requirements
3. Audit and review strata management plan	3.1 Audit stable structure controls according to legislative requirements and strata management plan 3.2 Audit strata monitoring and testing systems according to legislative requirements and strata management plan 3.3 Audit recording and reporting systems according to legislative and site requirements 3.4 Audit system maintenance program and procedures according to legislative and site requirements 3.5 Audit strata management training plan according to strata management plan and site requirements

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
Oral communication	Conveys information and requirements clearly and listens actively
Reading	Identifies and interprets relevant information from workplace procedures, documentation and legislation
Writing	Prepares specific information that complies with requirements, using sector-specific vocabulary, grammatical structures and conventions

Unit Mapping Information

Supersedes and is equivalent to RIIMCU506D Implement the strata management plan.

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 RIIMCU506E Implement the strata management plan

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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:

- implement strata management plans on at least two occasions, including:
 - identifying viable options and selecting strata management plan elements that best meet required outcomes
 - conducting audits and preparing reports.

During the above, the candidate must:

- locate and apply relevant legislation, documentation, policies and procedures and confirm work activity is compliant
- apply procedures and techniques for implementing strata management plans, including:
 - accessing, interpreting and applying technical information relating to strata management
 - interpreting and applying design criteria
 - identifying and evaluating geological and geotechnical information
 - accessing and analysing historical strata management information related to mine and failure mode of mine structures
- work with others to implement strata management plans in a manner that meets required outcomes, including:
 - communicating clearly and concisely with others to receive and clarify work instructions and convey work progress
 - preparing operating procedures relating to strata management
 - identifying the relevant information and scope of the work necessary to meet required outcomes.

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 legislation required to implement strata management plans
- key procedures and documentation required to implement strata management plans, including:
 - strata management plan
 - mine site historical information
 - mine site geological and hydrological information
- types, characteristics, technical capabilities and limitations of strata monitoring and testing devices and systems, including:
 - convergence indicators
 - telltales
 - extensometer
 - load cells
 - stress cells
- systems of mining and their impact on strata management, including:
 - tunnels
 - drifts
 - stone drivage
 - shaft sinking
 - pillar extraction
 - partial extraction
 - punch mining
 - longwall mining (including installation and recovery)
 - use of breaker line support and fault drivage
 - strata support and monitoring systems
- factors affecting stability of mining structures, including:
 - geology and strata gas characteristics
 - lithology
 - sedimentology, including:
 - subsidence
 - water bearing strata
 - permeability of seam and strata
 - hydrology
 - rock property testing
 - caving characteristics
 - windblast
 - outburst
 - gas content

- over and underlying strata
- mining structure failure modes
- stress, including:
 - mining induced stress
 - vertical and horizontal stress
 - tectonics
 - topographical features
- systems of work and their impact on strata management, including:
 - bord and pillar
 - place changing
 - longwall
 - highwall
 - auger mining
 - pillar extraction
 - partial extraction
 - use of breaker line support
 - punch mining
- mining engineering principles, including:
 - exploration techniques
 - audit methodologies
 - limitations and controls
- techniques for identifying individual training needs and auditing strata management training plans
- principles, processes and techniques for emergency response, evacuation and disaster planning
- techniques for leading and coordinating work activities with others.

Assessment Conditions

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

- include access to:
 - strata management plan
- 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	

Industry sector	AQF indicator level***	Required assessor or industry subject matter expert experience
		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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