



Australian Government

RIIMCU603D Establish and maintain the gas drainage management plan

Release: 2

RIIMCU603D Establish and maintain the gas drainage management plan

Modification History

Release	Comment
1	This unit replaces RIIMCU603A Establish and maintain the gas drainage management plan
2	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 maintain the gas drainage management plan in Coal mining.

This unit is appropriate for those working in management roles

Licensing, legislative, regulatory and certification requirements that apply to this unit can vary between states, territories, and industry sectors. Relevant information must be sourced prior to application of the unit.

Unit Sector

Coal mining (Underground)

Elements and Performance Criteria

1. Plan and prepare to establish and maintain the gas drainage management plan	1.1 Access, interpret and apply gas drainage management plan documentation, and ensure the work activity is compliant 1.2 Identify, evaluate and clarify coal seam characteristics and conditions which could lead to a requirement for gas drainage 1.3 Identify and clarify the effects of gas drainage on mine atmosphere 1.4 Identify the requirements for ventilation in relation to gas drainage 1.5 Identify and clarify the impacts of water accumulation on gas drainage
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2. Identify, analyse and evaluate gas drainage control options and measures	2.1 Identify and evaluate the types and advantages/disadvantages of gas drainage methods 2.2 Identify and evaluate hazards relating to gas drainage 2.3 Identify and evaluate the method, purpose and procedures for installation and use of mine monitoring systems with regards to gas drainage
3. Design and develop gas drainage management systems	3.1 Design and develop gas drainage systems 3.2 Design and develop the surface and underground infrastructure to minimise the risk of hazards 3.3 Design and develop monitoring and controls systems
4. Establish the gas drainage management plan	4.1 Develop and establish hazard control procedures 4.2 Establish action levels to minimise the hazards 4.3 Develop and establish gas monitoring system installation, operation and maintenance procedures 4.4 Develop and establish gas drainage system installation, operation and recovery procedures 4.5 Develop and establish gas drainage system maintenance requirement procedures 4.6 Develop and establish gas drainage system information, recording and reporting procedures 4.7 Establish training requirements for the gas drainage management system
5. Plan and prepare for the implementation of the gas drainage management plan	5.1 Identify, clarify and communicate to all personnel roles and responsibilities 5.2 Identify, forecast, obtain and allocate/schedule resources required for the implementation 5.3 Implement the gas drainage management training program 5.4 Review the gas drainage management plan and implement required changes
6. Audit the effectiveness of the gas drainage management system	6.1 Audit gas drainage monitoring systems 6.2 Audit gas drainage control devices 6.3 Audit reporting and recording systems 6.4 Audit gas drainage installation, operation, maintenance and recovery procedures 6.5 Audit the gas drainage management training plan for currency, relevance and compliance

	6.6 Identify and respond promptly to instances of non-compliance or other discrepancies/deficiencies revealed by audit
	6.7 Maintain written records, reports and policy documentation

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

RIIMCU603A Establish and maintain the gas drainage management plan

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 RIIMCU603D Establish and maintain the gas drainage management plan

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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 evidence that the candidate:

- locates and applies relevant legislation, documentation, policies and procedures
- implements the procedures and techniques for the safe, effective and efficient establishment and maintenance of the gas drainage management plan including:
 - operating hand held monitoring equipment
 - applying hazard and risk management processes and techniques
 - accessing, evaluating and applying data from monitoring systems and equipment
 - accessing, interpreting and applying geological reports
 - interpreting and applying mathematical and scientific theorems / laws related to gas drainage
 - performing gas drainage planning mathematical calculations
 - accessing, evaluating and applying design criteria for gas drainage systems and devices
 - interpreting computer spreadsheets and modelling / simulations
 - collecting, collating and evaluating gas drainage data
 - accessing and analysing archival and historical gas information related to the mine
- works effectively with others to undertake and complete the establishment and maintenance of the gas drainage management plan that meets all of the required outcomes including:
 - communicating clearly and concisely with others to receive and clarify work instructions, and convey work progress

- identifying the relevant information and scope of the work necessary to meet the required outcomes
- establishing technical procedures relating to gas drainage
- demonstrates completion of establishing and maintaining the gas drainage management plan that safely, effectively and efficiently meets all of the required outcomes on more than one (1) occasion including:
 - identifying viable options and selecting the gas drainage techniques that best meet the required outcomes
 - conducting enquiries/investigations and preparing reports establishing gas drainage training requirements, programs, systems and procedures
 - conducting enquiries/investigations and preparing reports

Knowledge Evidence

The candidate must demonstrate knowledge in establishing and maintaining the gas drainage management plan through:

- identifying and evaluating the principles of ventilation management including mine and goaf ventilation systems
- identifying and evaluating the methods of gas drainage,
- identifying and evaluating the impact of gas drainage on mining techniques, mine and panel design and production output
- identifying and evaluating the impact of the strata geology and coal seam characteristics on the gas drainage management plan
- identifying and evaluating the impacts of accumulation of coal dust after gas drainage has been completed
- identifying and evaluating components/factors to be considered in the gas drainage management plan
- selecting and using equipment, monitoring systems and techniques
- selecting and applying ventilation theory
- identifying and applying emergency response and evacuation/disaster planning processes and techniques

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 must be assessed in the context of this sector's work environment; 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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