



Australian Government

RIIMCU604D Establish and maintain the outburst management plan

Release: 2

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Modification History

Release	Comment
1	This unit replaces RIIMCU604A Establish and maintain the outburst 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 outburst 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 outburst management plan	1.1 Access, interpret and apply outburst 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 outburst conditions 1.3 Identify, analyse and evaluate hazards and risks relating to outburst 1.4 Identify, analyse and evaluate geological and geotechnical conditions which may contribute to outburst prone conditions 1.5 Identify, analyse and evaluate the effects of outburst on mine atmosphere, personnel, services and infrastructure
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	1.6 Identify the requirements for personnel, services and infrastructure protection in relation to outburst
2. Identify, analyse and evaluate outburst potential and control options and measures	2.1 Identify, analyse and evaluate the types and advantages/disadvantages of outburst sampling and analytical process options 2.2 Identify, analyse and evaluate geological and physical conditions of the seam and surrounding strata 2.3 Identify, analyse and evaluate the types and advantages/disadvantages of outburst control methods 2.4 Identify, analyse and evaluate the methods, purposes and capabilities of monitoring systems with regard to outburst 2.5 Identify, analyse and evaluate control options to address outburst hazards 2.6 Identify and clarify the scope and impact of gas drainage on outburst prone areas 2.7 Identify training needs of individuals and prepare training plans
3. Design and develop outburst management systems	3.1 Access, interpret and include drilling systems, including equipment, processes and techniques into the development of the outburst management system 3.2 Access, interpret and include core sampling and related analysis systems, processes and techniques into the development of the outburst management system 3.3 Identify, select and measure the criteria for addressing geological and geotechnical hazards and include into the outburst management plan 3.4 Access, interpret and include personnel safety measures and techniques into the outburst management system 3.5 Access, interpret and include services and infrastructure protection measures into the outburst management system 3.6 Develop monitoring systems, including those for real-time information to minimise the risk of an outburst 3.7 Design and develop controls systems for the outburst management system
4. Establish the outburst management plan	4.1 Design and establish outburst drilling, sampling, collection, analysis and reporting procedures 4.2 Establish actions and procedures required in response to gas threshold levels 4.3 Establish geological and geotechnical hazard identification

	and response procedures 4.4 Develop permit to mine procedures 4.5 Establish personnel safety measures and techniques 4.6 Establish services and infrastructure protection measures 4.7 Establish outburst information recording and reporting procedures 4.8 Establish emergency response and evacuation plans 4.9 Establish training requirements for the outburst management plan
5. Plan and prepare for the implementation of the outburst management plan	5.1 Identify, clarify and communicate to all personnel roles and responsibilities, as specified in the outburst management plan 5.2 Identify, forecast, obtain and allocate/schedule resources required for the implementation of the outburst management plan 5.3 Implement the outburst training program 5.4 Review the outburst management plan implementation procedures and implement required changes
6. Audit the effectiveness of the outburst management plan	6.1 Audit the outburst management system 6.2 Audit outburst drilling and analytical procedures 6.3 Audit monitoring systems 6.4 Audit geological and geotechnical identification, monitoring and response procedures 6.5 Audit recording plans and procedures 6.6 Audit outburst training plan for currency, relevance and compliance with the requirements of the outburst management system 6.7 Identify and respond promptly to instances of non-compliance or other discrepancies/deficiencies revealed by audit 6.8 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

RIIMCU604A Establish and maintain the outburst 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 RIIMCU604D Establish and maintain the outburst 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 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 outburst management plan including:
 - operating hand held monitoring equipment
 - accessing data from monitoring equipment
 - interpreting outburst data
 - performing outburst planning mathematical calculations
 - interpreting computer spreadsheets and outburst modelling / simulations
 - interpreting and applying mathematical and scientific theorems / laws related to outburst
 - accessing and applying design criteria for outburst management systems
 - accessing and analysing archival and historical outburst information related to the mine
 - assessing the risks and consequences of outburst
- works effectively with others to undertake and complete the establishment and maintenance of the outburst 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
 - developing procedures appropriate to mine operations for management of outburst

- demonstrates completion of establishing and maintaining the outburst management plan that safely, effectively and efficiently meets all of the required outcomes on more than one (1) occasion including:
 - identifying viable options and the selection of outburst management techniques that best meet the required outcomes
 - conducting enquiries/investigations and preparing reports
 - establishing outburst training requirements

Knowledge Evidence

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

- systems of mining
- systems of work
 - identifying and monitoring factors affecting stability of mining structures
 - mining and general engineering principles relevant to the behaviour of excavations in rock and coal
 - identifying the impact of differing geological features and conditions on outburst zones
 - identifying and using monitoring systems and techniques
 - identifying and assessing outburst indicators and ratios
 - identifying and evaluating methods of control of outburst
 - completing mine mapping of outburst zones, related geology and features
 - 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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