



Australian Government

RIIMCU501E Implement the spontaneous combustion management plan

Release: 1

RIIMCU501E Implement the spontaneous combustion 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 spontaneous combustion management plans in coal mining, including implementing and reviewing mine atmosphere and monitoring measures and spontaneous combustion control measures.

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. Identify and apply resources to spontaneous combustion management plan	1.1 Access, interpret and implement spontaneous combustion management plan documentation and confirm work activity is compliant 1.2 Identify and address potential risks, hazards and environmental issues and implement control measures according to site requirements 1.3 Identify situations where trigger levels are reached and implement response procedures according to spontaneous combustion management plan

ELEMENT	PERFORMANCE CRITERIA
	1.4 Review spontaneous combustion procedures and implement identified improvements according to site requirements 1.5 Implement identified spontaneous combustion management plan training requirements
2. Implement mine atmosphere monitoring measures	2.1 Implement procedures for installation, operation and maintenance of monitoring systems according to spontaneous combustion management plan 2.2 Implement systems and procedures for collecting mine gas samples according to spontaneous combustion management plan
3. Monitor and respond to spontaneous combustion indicators	3.1 Implement system for identification and inspection of spontaneous combustion indicators according to spontaneous combustion management plan 3.2 Monitor sensory spontaneous combustion indicators, analyse and investigate variations and implement corrective action according to spontaneous combustion management plan and site requirements 3.3 Monitor gaseous spontaneous combustion indicators, analyse and investigate variations and implement corrective action according to spontaneous combustion management plan and site requirements 3.4 Process records and reports according to spontaneous combustion management plan and site requirements 3.5 Implement emergency and evacuation procedures according to safety management system and site requirements
4. Implement and audit spontaneous combustion control measures	4.1 Implement ventilation control measures according to spontaneous combustion management plan 4.2 Implement ventilation monitoring systems and surveys for system status assessment according to combustion management plan 4.3 Implement inertisation as required and according to spontaneous combustion management plan 4.4 Implement response actions and review according to site requirements 4.5 Implement systems to prevent and/or respond immediately to intersections of work groups according to site requirements 4.6 Audit control measures according to spontaneous combustion management plan and amend procedures/measures as required

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 RIIMCU501D Implement the spontaneous combustion 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 RIIMCU501E Implement the spontaneous combustion management plan

Modification History

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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 spontaneous combustion management plans on at least two occasions, including:
 - developing procedures for mine operations spontaneous combustion management
 - implementing mine atmosphere monitoring measures
 - monitoring and responding to spontaneous combustion indicators
 - implementing spontaneous combustion control measures
 - auditing spontaneous combustion control measures.

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 spontaneous combustion management plan, including accessing, interpreting and applying:
 - technical information
 - legislative and site requirements
 - records and reports
 - briefings and handover details
 - the principles of mine design
 - processes to inspect, monitor, analyse and record data relating to spontaneous combustion management
 - an assessment of the risks and consequences of spontaneous combustion
 - methods to prepare technical reports
- work with other to plan, prepare and coordinate the implementation of the spontaneous combustion management plan by:

- communicating clearly and concisely with others to receive and clarify work instructions, and convey work progress
- identifying training needs related to spontaneous combustion
- 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 the spontaneous combustion management plans
- key procedures and documentation required to implement the spontaneous combustion management plans
- principles and techniques for identifying and monitoring causes and effects of spontaneous combustion
- principles and techniques for identifying the effects of coal seam characteristics, coal rank and geological conditions on spontaneous combustion
- principles of mine design, including:
 - geological data
 - strata control
 - sealing design
 - inertisation principles and techniques
- principles of ventilation management, including:
 - mine gases and gas management
 - mine atmosphere monitoring
 - mine and goaf ventilation systems
 - ventilation structures
- techniques for assessing mine design and plan relating to spontaneous combustion
- techniques for identifying spontaneous combustion management plan requirements, including:
 - methods of control of spontaneous combustion
 - spontaneous combustion risks and hazards
 - spontaneous combustion indicators and ratios
- techniques for identifying individual training needs
- techniques for auditing spontaneous combustion control measures
- 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:
 - spontaneous combustion 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
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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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