



Australian Government

RIIMCU601E Establish and maintain spontaneous combustion management systems

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 establish and maintain spontaneous combustion management systems in coal mining, including design, development, audit and review processes and procedures.

It applies to those working in management roles. They generally perform complex, non-routine tasks involving strategic and planning activities and are responsible for establishing and maintaining operational systems and plans.

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 establish and maintain spontaneous combustion management system	1.1 Access, interpret and apply spontaneous combustion management documentation 1.2 Identify causes and hazards of spontaneous combustion 1.3 Identify and clarify coal seam characteristics which affect likelihood of spontaneous combustion 1.4 Identify and clarify the effects of changes in the mine atmosphere on the risks of spontaneous combustion 1.5 Identify the impact of mine design and ventilation on the risks of spontaneous combustion

ELEMENT	PERFORMANCE CRITERIA
	1.6 Identify spontaneous combustion risks associated with the planned and unplanned coal accumulation 1.7 Identify spontaneous combustion risks associated with transport of coal
2. Identify and clarify spontaneous combustion control systems and procedures	2.1 Identify and evaluate method, purpose and procedures for installation and use of mine monitoring systems, with respect to spontaneous combustion 2.2 Identify and evaluate the method, purpose and procedures for mine design and ventilation systems, with respect to spontaneous combustion 2.3 Identify and evaluate the methods and purposes of natural and induced inertisation in the goaf and waste workings, with respect to spontaneous combustion 2.4 Identify and clarify the scope and impact of gas management on spontaneous combustion 2.5 Identify and clarify seal design requirements in terms of geological structures, construction, location and use of materials for minimising spontaneous combustion risks
3. Design and develop spontaneous combustion management system	3.1 Identify, clarify and apply the principles of mine design with respect to spontaneous combustion 3.2 Review effectiveness of mine design process in terms of minimising spontaneous combustion risks and amend processes as required 3.3 Incorporate ventilation systems and controls for minimising spontaneous combustion risks 3.4 Evaluate inertisation options applicable to the mine and incorporate into development of the system 3.5 Incorporate mine monitoring systems for minimising spontaneous combustion risks into the management system 3.6 Develop and incorporate control methods for mitigating the effect of spontaneous combustion occurrence into contingency plans
4. Establish spontaneous combustion management system	4.1 Establish spontaneous combustion management objectives, processes, descriptions, responsibilities and review procedures according to site requirements 4.2 Identify, develop and establish hazard control procedures according to site requirements 4.3 Develop and establish spontaneous combustion management monitoring system installation, operation and maintenance procedures according to site requirements 4.4 Develop and establish ventilation control device installation, operation and maintenance procedures according to site requirements 4.5 Develop and establish inertisation procedures according to site requirements

ELEMENT	PERFORMANCE CRITERIA
	4.6 Develop and establish spontaneous combustion system information recording and reporting procedures according to site requirements 4.7 Establish and review trigger levels and responses to minimise the hazards of spontaneous combustion according to site requirements 4.8 Identify training needs and confirm training plan is established according to site requirements 4.9 Develop and establish audit, review and updating procedures according to site requirements
5. Plan and prepare to implement spontaneous combustion management system	5.1 Identify, interpret and confirm the legislative and site requirements 5.2 Identify, clarify and communicate roles and responsibilities to all personnel according to spontaneous combustion management plan 5.3 Identify, forecast, obtain and allocate/schedule resources required to implement spontaneous combustion management plan 5.4 Review the spontaneous combustion management implementation procedures and implement changes as required
6. Audit and review spontaneous combustion management system	6.1 Audit the operation of spontaneous combustion monitoring systems according to legislative and site requirements 6.2 Audit mine ventilation control devices according to site requirements 6.3 Audit recording and reporting systems according to site requirements 6.4 Audit the maintenance program and procedures according to site requirements 6.5 Audit spontaneous combustion training program according to site requirements 6.6 Identify and respond to instances of non-compliance or other discrepancies/deficiencies revealed by audit 6.7 Maintain records, reports and policy documentation according to 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 a range of requirements, using sector-specific vocabulary, grammatical

SKILL	DESCRIPTION
	structures and conventions

Unit Mapping Information

Supersedes and is equivalent to RIIMCU601D Establish and maintain 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>