



Australian Government

RIIMCU409 Apply and monitor polymeric chemical management plans

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 7.0.

Application

This unit describes the skills and knowledge required to apply and monitor polymeric chemical management plans in underground coal mining, including developing and administering work plans, applying risk management controls, and implementing systems maintenance and modifications.

The unit applies to those working in site based supervisory or technical specialist roles. They generally perform 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 handle and apply polymeric chemicals	1.1 Obtain, interpret, confirm and clarify work instructions 1.2 Access, interpret and apply documentation required to apply and monitor polymeric chemical management plans and confirm work activity is compliant 1.3 Identify health monitoring requirements for polymeric chemicals 1.4 Select and wear personal protective equipment according to site requirements

ELEMENT	PERFORMANCE CRITERIA
	1.5 Identify, address and report potential risks and hazards associated with handling, storing, pumping and applying polymeric materials and implement control measures within scope of own role 1.6 Obtain and interpret emergency procedures and identify steps required to respond to emergencies 1.7 Identify, obtain and allocate resources required to apply the polymeric chemical management plan 1.8 Identify, clarify and communicate work group and individual roles and responsibilities 1.9 Identify individual training needs and provide access to the established polymeric management training program and system
2. Apply and monitor polymeric chemical application plan	2.1 Assess impact of plan on mine work activities 2.2 Apply and monitor site procedures during work activities and confirm outcomes are achieved according to job requirements 2.3 Apply and monitor procedures for reviewing and modifying work activities and report findings 2.4 Participate in systems audit and review according to site requirements 2.5 Monitor emergency response and evacuation plans and procedures, and apply response measures where required 2.6 Apply and monitor polymeric application plan for inspections and sampling and confirm tasks are completed according to mine procedures 2.7 Apply and monitor site storage procedures according to site requirements
3. Apply and monitor polymeric chemicals systems maintenance plan	3.1 Schedule and complete inspections, repairs and maintenance activities according to job requirements 3.2 Record, report and monitor maintenance activities according to job and site requirements
4. Oversee housekeeping activities	4.1 Check and confirm work area is cleared and materials are disposed of, reused, recycled and stored according to site requirements 4.2 Check and confirm, plant, equipment and tool maintenance requirements are carried out and recorded according to manufacturer specifications and site requirements 4.3 Identify opportunities to improve application of polymeric chemical systems plan, and escalate where required, within scope of own role

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
Numeracy	Calculates resourcing requirements and perform mathematical calculations
Oral communication	Conveys information and requirements clearly and listens actively
Reading	Identifies and interprets specific information from workplace documentation
Writing	Prepares specific information that complies with requirements, using sector-specific vocabulary, grammatical structures and conventions

Unit Mapping Information

No equivalent unit. New unit.

Links

Companion Volume implementation guides is found on VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=88a61002-9a21-4386-aaf8-69c76e675272>

Assessment Requirements for RIIMCU409 Apply and monitor polymeric chemical management plans

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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:

- apply and monitor polymeric chemical management plans for at least one of the following injection resins on at least two occasions:
 - phenolic
 - polyurethane (PUR)
 - urea silicate.

During the above, the candidate must:

- locate and apply required legislation, documentation, policies and procedures, and confirm work activity is compliant
- implement procedures and techniques for applying and monitoring site polymeric chemical management plans, including:
 - administering first aid for persons affected by a hazardous substance
 - explaining safety data sheets (SDS) requirements to work groups
 - determining operational techniques required for work activity
 - developing and administering work plans
 - applying hazard and risk management controls
 - identifying risks and hazards associated with handling, transporting and working in proximity to polymeric chemicals and implementing control measures
 - identifying training needs for personnel involved in work activity
 - implementing requirements for labelling, transporting and using hazardous substances
 - implementing systems maintenance and modifications
- work with others to apply and monitor polymeric chemical management plans in a way that meets required outcomes, including:
 - providing instruction and supervision to personnel involved in work activity, including preparing for and conducting briefings, toolbox and site meetings

- providing team leadership
- completing records and reporting system requirements
- consulting with key stakeholders.

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:

- legislative requirements relating to applying and monitoring polymeric chemical management plans
- policies, procedures and documentation required to apply and monitor polymeric chemical management plans, including those relating to:
 - reporting requirements throughout a shift, including:
 - briefings
 - handovers
 - work orders
 - toolbox meetings
 - safety and health documentation relating to polymeric chemical exposure
 - safety and health monitoring requirements and procedures, including:
 - job safety analysis (JSAs)
 - safe work procedures (SWPs)
 - site environmental requirements and constraints
 - system audit and review procedures
 - statutory compliance, including safety responsibilities of supervisors
 - work health and safety, including required personal protective equipment
- techniques for applying and monitoring polymeric chemical management plans, including those related to:
 - scope of polymeric chemical work activity, including:
 - application of materials, including fill and sealant
 - hazardous materials labelling
 - placement and drilling of holes
 - pumping of polymeric chemicals
 - transporting and storing hazardous materials
 - stakeholder management and consultation
 - relationships between various areas of mine operations, including mine procedures
- types, characteristics, technical capabilities and limitations of plant and equipment required for work activity with polymeric chemicals in underground coal mining
- techniques for interpreting and applying mine plans and environmental data
- techniques for measuring, sampling and identifying sample characteristics
- techniques for identifying individual training needs
- processes and techniques for emergency responses, evacuations and disaster planning

- techniques for coordinating and communicating job activities with others.

Assessment Conditions

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

- include access to:
 - personal protective equipment
 - polymeric chemical 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 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 RII 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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