



Australian Government

RIIMCU218 Work safely with polymeric chemicals in underground coal mining

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 work safely with polymeric chemicals in underground coal mining. It includes conducting basic planning, preparation and housekeeping activities to support operations in proximity to polymeric chemicals use.

The unit applies to those who may be exposed to the use and application of polymeric chemicals in the work environment. They generally work under supervision to undertake a prescribed range of functions involving known routines and procedures and take some responsibility for the quality of work outcomes. The use of polymeric chemicals may include storage, transportation, handling, mixing, pumping, injection, void filling and disposal of excess materials and associated equipment.

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 work safely with polymeric chemicals	1.1 Obtain, interpret, clarify and confirm work requirements 1.2 Access, interpret and apply documentation required to work safely with polymeric chemicals in underground coal mining 1.3 Select and wear personal protective equipment according to site requirements

ELEMENT	PERFORMANCE CRITERIA
	1.4 Identify potential risks, hazards and environmental issues, implement control measures within scope of own role, and escalate where required 1.5 Obtain and interpret emergency procedures and identify steps required to respond to emergencies
2. Operate in work area where polymeric chemicals are in use	2.1 Communicate work activities with others within scope of own role 2.2 Identify and locate emergency response equipment in work area 2.3 Monitor hazards and risks within scope of own role, confirm safe operation of plant and equipment, and escalate where required
3. Carry out housekeeping activities	3.1 Conduct housekeeping activities according to site requirements 3.2 Identify execution of housekeeping activities that do not meet site requirements, respond within scope of own role and escalate where 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 specific information from workplace documentation
Self-management	Monitors and minimises own exposure to worksite risks and hazards during activities

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 RIIMCU218 Work safely with polymeric chemicals in underground coal mining

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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:

- carry out work activity in underground coal mining in proximity to at least one of the following polymeric chemical 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, including:
 - incident and emergency response requirements
 - polymeric chemicals labelling, transport and use requirements
 - safety and health documentation relating to polymeric chemical exposure
 - safety data sheets (SDS) requirements
 - site health monitoring requirements
- implement the requirements, procedures and techniques to work safely with polymeric chemicals in underground coal mining, including:
 - identifying, addressing and reporting potential hazards, risks and environmental issues, including risks associated with transporting, using and working in proximity to polymeric chemicals
 - identifying and applying spillage response requirements
 - selecting and applying required personal protective equipment
- work with others to work safely with polymeric chemicals in underground coal mining in a way that meets required outcomes, including:
 - organising work activities to meet task requirements
 - communicating with others to receive and clarify work instructions

- complying with reporting requirements and exclusion zone procedures.

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 working safely with polymeric chemicals in underground coal mining
- policies, procedures and documentation required to work safely with polymeric chemicals in underground coal mining, including those relating to:
 - biological monitoring requirements
 - communication plans
 - labelling, transporting, using and working in proximity to hazardous goods, including polymeric chemicals
 - operational zones
 - personal protective equipment requirements
 - safety and health documentation relating to polymeric chemical exposure
 - safety data sheets (SDS) requirements
 - site health monitoring requirements
 - site environmental and monitoring requirements
 - storage, including:
 - temperature control
 - ventilation
 - spill containment
 - compatibility of chemicals
 - signage
 - access
 - fire response
 - work health and safety
- polymeric chemical types, characteristics, technical capabilities and limitations, risks and hazards
- types and characteristics of hazards when working with polymeric chemicals, including those relating to:
 - individual chemical ingredients and their properties
 - frequency and intensity of exposure
 - route of entry into the body including ingestion, absorption and inhalation
 - susceptibility of the individual exposed
- techniques for identifying, preventing and responding to relevant hazards and emergencies, including those relating to:
 - positioning of equipment and work locations
 - ventilation quantity and arrangements to remove airborne contaminants

- uncontrolled release of chemicals, including spills, ruptured hoses, ruptured containers
- unplanned or undesired outcomes, including generation of excessive heat or ignition of products
- techniques for housekeeping and reporting
- basic techniques for 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
 - equipment required to work safely with polymeric chemicals in underground coal mining
- 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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