



**Australian Government**

# **RIIMCU303E Conduct continuous miner operations**

**Release: 1**

# RIIMCU303E Conduct continuous miner operations

## 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 conduct continuous miner operations in underground coal mining, including flitting continuous miners, cutting and loading coal, and carrying out operator maintenance.

It applies to those working in operational roles. They generally work under minimal supervision to undertake a broad range of tasks in varied work contexts, using some discretion and judgement in selecting equipment, services or contingency measures.

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 conduct continuous miner operations | <ul style="list-style-type: none"><li>1.1 Obtain, interpret, clarify and confirm work requirements</li><li>1.2 Access, interpret and apply documentation required for continuous miner operations</li><li>1.3 Identify and address potential risks, hazards and environmental issues and implement control measures according to site requirements</li><li>1.4 Select and wear personal protective equipment according to site requirements</li><li>1.5 Access, interpret and apply mine environmental, geological and survey data according to site requirements</li></ul> |

| ELEMENT                                     | PERFORMANCE CRITERIA                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
|---------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                             | 1.6 Obtain and interpret emergency procedures and identify steps required to respond to emergencies                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| 2. Flit continuous miner, cut and load coal | 2.1 Coordinate activities with others within scope of own role<br>2.2 Carry out prestart and start-up procedures according to manufacturer specifications and site requirements<br>2.3 Operate continuous miner according to job requirements<br>2.4 Flit continuous miner according to job requirements<br>2.5 Cut roadways/headings according to sequence plan and geological conditions, and maintain line and horizon<br>2.6 Monitor systems and alarms and rectify or report factors adversely affecting production as required and within scope of own role<br>2.7 Identify and monitor geological conditions and respond to changing conditions according to manager support rules<br>2.8 Monitor risks and hazards and confirm safe operation of plant and equipment<br>2.9 Carry out shutdown and isolation procedures according to manufacturer specifications and site requirements |
| 3. Carry out operator maintenance           | 3.1 Prepare machine/equipment for maintenance according to manufacturer specifications and site requirements<br>3.2 Conduct inspection and fault finding according to manufacturer specifications and site requirements<br>3.3 Carry out scheduled maintenance tasks according to manufacturer specifications and site requirements<br>3.4 Carry out housekeeping activities according to site requirements<br>3.5 Complete maintenance records 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                                                                                                                           |
|-----------------|---------------------------------------------------------------------------------------------------------------------------------------|
| Numeracy        | <ul style="list-style-type: none"> <li>Calculates basic measurements including mass and dimensions</li> </ul>                         |
| Reading         | <ul style="list-style-type: none"> <li>Identifies and interprets information from workplace documentation and legislation</li> </ul>  |
| Self-management | <ul style="list-style-type: none"> <li>Monitors and minimises own exposure to worksite risks and hazards during activities</li> </ul> |

| SKILL   | DESCRIPTION                                                                                                                                            |
|---------|--------------------------------------------------------------------------------------------------------------------------------------------------------|
| Writing | <ul style="list-style-type: none"><li>Completes maintenance records using sector-specific vocabulary, grammatical structures and conventions</li></ul> |

## Unit Mapping Information

Supersedes and is equivalent to RIIMCU303D Conduct continuous miner operations.

## 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 RIIMCU303E Conduct continuous miner operations

## 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:

- conduct continuous miner operations on at least two occasions, including:
  - carrying out pre-start, start-up, shutdown and isolation procedures
  - trimming roof, floor and ribs
  - brushing roof and floor
  - breakaway
  - wide drivage
  - confirming cutting sequence information, including locations and measurements of areas to be mined.

During the above, the candidate must:

- locate and apply relevant documentation, policies and procedures and confirm work activity is compliant
- implement the requirements, procedures and techniques for continuous miner operations, including:
  - interpreting, applying and communicating technical information
  - identifying and minimising environmental issues, potential hazards and risks
  - selecting and using relevant tools and equipment
  - complying with environmental requirements and constraints
  - identifying work requirements
  - applying diagnostic and fault finding techniques
  - interpreting mine survey and geological data
  - maintaining line and horizon
  - maintaining equipment records
  - maintaining sufficient services
  - applying cable care and safety

- work effectively with others to conduct continuous miner operations in a way that meets required outcomes, including:
  - organising work activities to meet task requirements
  - communicating clearly and concisely with others to receive and clarify work instructions
  - complying with reporting requirements and procedures
  - determining coordination requirements throughout work activities.

## 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 conduct continuous miner operations
- key policies, procedures and documentation required to conduct continuous miner operations, including development plans
- continuous miner characteristics, technical capabilities and limitations, including:
  - continuous miner design types, including:
    - radio remote controlled
    - manually operated
    - single pass
    - dual pass
  - principles, processes and techniques for:
    - prestart checks, start-up, park, shutdown and isolation procedures
    - confirming and clarifying cutting sequence information, including locations and markings of areas to be mined
    - flitting continuous miners
    - high drivage, including risks associated with cutting in different strata types
    - cutting roadways/headings and maintaining line and level
    - preparing continuous miners for maintenance and conducting inspection, fault finding and scheduled maintenance
- mine and face ventilation systems, and relevant mine environmental, geological and survey data types, including:
  - permit to mine
  - bore hole intersection notices
  - ventilation/gas data
  - deputy reports
  - geological hazard plans
  - survey data
  - longitudinal and cross sectional survey plans
- principles and techniques for identifying and responding to relevant hazards and emergencies, including those related to:

- roof and rib falls
- cable flashes
- injury to personnel
- outbursts
- inrushes
- frictional ignitions
- loss of ventilation
- gas trips
- gas accumulation
- breaking into old workings
- water
- floor conditions
- site requirements for housekeeping and completing maintenance records
- 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:
  - continuous miner
  - personal protective equipment
  - equipment required to conduct continuous miner operations
- 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:

| <b>Industry sector</b>                                                                       | <b>AQF indicator level***</b>                                                                                                                                                                                                                                                                                                  | <b>Required assessor or industry subject matter expert experience</b> |
|----------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------|
| 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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