



Australian Government

RIIRAI510D Implement, monitor, rectify and report on interfaces between electrical and mechanical componentry

Release: 2

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Modification History

Release	Comment
1	This unit replaces RIIRAI510A Implement, monitor, rectify and report on interfaces between electrical and mechanical componentry
2	Required frequency and volume of evidence amended in Performance evidence. Substantial amendments made in Assessment Conditions field, including: references to Industry Sectors, assessor and subject matter expert experience requirements, how assessment should be conducted and what it should confirm.

Application

This unit describes a participant's skills and knowledge required to implement, monitor, rectify and report on interfaces between electrical and mechanical componentry in Coal mining.

This unit is appropriate for those working in management or technical specialist roles

No licensing, legislative or certification requirements apply to this unit at the time of publication

Unit Sector

Coal mining

Elements and Performance Criteria

1. Plan and prepare requirements of electrical and mechanical interface	1.1 Access, interpret and apply electrical and mechanical componentry interface documentation and ensure the work activity is compliant 1.2 Obtain, read, interpret, clarify and confirm work requirements 1.3 Identify and address potential risks, hazards and environmental issues and implement control measures 1.4 Select and wear personal protective equipment appropriate for work activities 1.5 Examine components defect reports 1.6 Inspect components according to site, legislative and
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	manufacturer procedures 1.7 Prepare reports detailing the equipment modifications requirements
2. Plan rectification work on electrical and mechanical interface componentry	2.1 Communicate and coordinate activities with others throughout the work activity 2.2 Use available information from maintenance and test results to ensure accurate problem identification 2.3 Identify componentry faults and causes 2.4 Report fault rectification requirements 2.5 Obtain specialist advice/assistance where required 2.6 Isolate/tag componentry for rectification work
3. Rectify electrical and mechanical interface componentry	3.1 Dismantle componentry parts 3.2 Assess componentry parts for serviceability 3.3 Undertake modifications 3.4 Replace componentry parts 3.5 Test componentry for safe working with proscribed specifications 3.6 Record in writing repaired/modified componentry details 3.7 Notify appropriate personnel of repairs/modifications

Foundation Skills

Foundation skills essential to performance are explicit in the performance criteria of this unit. Further information is available in the Resources and Infrastructure Industry Training Package Companion Volume.

Unit Mapping Information

RIIRAI510A Implement, monitor, rectify and report on interfaces between electrical and mechanical componentry

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=88a61002-9a21-4386-aaf8-69c76e675272>

Assessment Requirements for RIIRAI510D Implement, monitor, rectify and report on interfaces between electrical and mechanical componentry

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Performance Evidence

Evidence is required to be collected that demonstrates a candidate's competency in this unit. Evidence must be relevant to the roles within this sector's work operations and satisfy all of the requirements of the performance criteria of this unit and include evidence that the candidate:

- locates and applies applicable legislation, documentation, policies and procedures
- implements procedures and techniques to safely, effectively and efficiently rectify and report on the interfaces between electrical and mechanical componentry including:
- accessing, interpreting and applying legislative, organisation and site requirements and procedures
- accessing, reading, interpreting and applying:
 - technical information
 - site / legislative requirements
 - records and reports
 - briefings and handover details
 - manufacturers' instructions
 - information management
 - equipment records maintenance
 - maintenance survey procedures
 - environmental constraints in rectification operations
 - principles of mine design
 - assessing the risks and consequences attached to mechanical systems
 - planning and coordinating activities

- working in confined spaces
- liaising with other parties
- problem solving
- performing analysis
- using measuring equipment
- applying report writing techniques
- facilitating meetings
- applying diagnostic techniques
- managing disposal of environmentally sensitive fluids and materials
- works effectively with others to rectify and report on the interfaces between electrical and mechanical componentry including:
 - communicating and coordinating with others and related activities throughout the work
- demonstrates completion of implementing, monitoring, rectifying and reporting on interfaces between electrical and mechanical componentry that safely, effectively and efficiently meets all of the required outcomes on more than one (1) occasion including:
 - completing work activities
 - identification and selection of viable options for the rectifying and reporting on the interfaces between electrical and mechanical componentry that best meet the required outcomes through:
 - obtaining specialist advice
 - accessing, interpreting and applying modifications according to manufacturer specifications/specialist advice

Knowledge Evidence

The candidate must demonstrate knowledge in rectifying and reporting on interfaces between electrical and mechanical componentry through:

- legislative, Australian standards, organisation and site requirements and procedures for;
 - maintenance of mechanical systems, including communications
 - emergency preparedness and response
 - risk management
 - recording and reporting
 - mines rescue,
 - work, health and safety
 - manufacturer instructions
 - standard work procedures
 - training programs
 - fire fighting
 - handling and storage of dangerous goods
 - local government and power authority requirements

- mine operating systems and procedures including;
 - transport systems, conveyor systems, systems of mining, ventilation systems, gas management systems and mine water management systems
- stores systems
- underground roadway and drilling
- protection systems
- reticulation systems
- mechanical systems
- audit procedures
- mine design principles and procedures relating to mechanical systems
- company organisation structure
- computer based systems
- training programs
- safety design features for maintenance of mechanical systems
- maintenance surveys

Assessment Conditions

- An assessor of this unit must satisfy the requirements of the NVR/AQTF or their successors; and Industry regulations for certification and licensing; and,
- this unit must be assessed in the context of this sector's work environment; and,
- this unit must be assessed in compliance with relevant legislation/regulation and using policies, procedures, processes and operational manuals directly related to the industry sector for which it is being assessed; and,
- assessment may be conducted in conjunction with the assessment of other Units of Competency; and,
- assessment must confirm consistent performance can be applied in a range of relevant workplace circumstances; and,
- assessors must demonstrate the performance evidence, and knowledge evidence as outlined in this Unit of Competency, and through the minimum years of current* work experience specified below in an Industry sector relevant to the outcomes of the unit; or,
- where the assessor does not meet experience requirements a co-assessment or partnership arrangement must exist between the qualified assessor and an Industry subject matter expert. The Industry subject matter expert should hold the unit being assessed (or an equivalent unit) and/or demonstrate equivalence of skills and knowledge at the unit level. An Industry technical expert must also demonstrate skills and knowledge from the minimum years of current work experience specified below in the Industry sector, including time spent in roles related to the unit being assessed; and,
- assessor and Industry subject matter expert requirements differ depending on the Australian Qualifications Framework Level (AQF) of the qualification being assessed and/or Industry Sector as follows:

Industry sector	AQF** Level	Required assessor or Industry subject matter expert experience
Drilling, Metalliferous Mining, Coal Mining, Extractive (Quarrying) and Civil Construction	1	1 Year
	2	2 Years
Drilling, Coal Mining and Extractive (Quarrying)	3-6	3 Years
Metalliferous Mining and Civil Construction	3-6	5 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.	

*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 frequent site assessments across various locations.

**Where a unit is being delivered outside of a Qualification the first numeric character in the Unit code should be considered to indicate the AQF level

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