



Australian Government

RIIMPG301D Control and monitor automated plant/machinery

Release: 2

RIIMPG301D Control and monitor automated plant/machinery

Modification History

Release	Comment
1	This unit replaces RIIMPG301A Control and monitor automated plant/machinery
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 control and monitor automated plant/machinery in Metalliferous Mining.

This unit is appropriate for those working in operational roles.

Licensing, legislative, regulatory and certification requirements that apply to this unit can vary between states, territories, and Industry sectors. Relevant information must be sourced prior to application of the unit.

Unit Sector

Metalliferous mining

Elements and Performance Criteria

1. Plan and prepare to control and monitor automated plant/machinery	1.1. Access, interpret and apply automated plant/machinery documentation and ensure the work activity is compliant documentation and ensure compliance to the work activity 1.2. Obtain, read, interpret, clarify and confirm work requirements 1.3. Select and wear personal protective equipment appropriate for the activity 1.4. Identify and address potential risks, hazards and environmental issues, and implement control measures 1.5. Obtain and interpret emergency procedures, and be prepared for fire/accident/emergency
2. Apply control and data acquisition	2.1. Identify, manage and report accidents and injuries 2.2. Identify, log, and report safety issues and hazards to

systems	appropriate personnel 2.3. Perform cleaning/housekeeping of plant and area and report associated hazards 2.4. Operate and communicate via UHF radio control methods in the underground and surface areas 2.5. Report and rectify/isolate defective equipment 2.6. Raise barricades and signs around hazardous areas and report to control and data acquisition system and/or relevant personnel 2.7. Maintain environmental requirements
3. Control and monitor plant/equipment with control and data acquisition system	3.1. Perform control and data acquisition system control and control room pre operation and visual checks 3.2. Start-up and log onto control and data acquisition system to operate ore handling system and equipment 3.3. Control and monitor the ore handling system, equipment operation and personnel safety through control and data acquisition system and closed circuit television 3.4. Communicate to technicians, team leaders and/or supervisors when starting or shutting down ore handling systems and equipment
4. Fault find and correct routine and non-routine mine control and data acquisition system operational and maintenance problems	4.1. Identify and correct minor deviations of equipment systems normal operating parameters 4.2. Follow emergency shutdown procedures. Report abnormal conditions to control room/system and/or supervisory staff 4.3. Isolate and tag mine control and data acquisition system equipment and associated accessories before conducting maintenance
5. Maintain mine control and data acquisition system and associated accessories	5.1. Conduct routine planned inspections, preventative maintenance 5.2. Perform cleaning/housekeeping of plant and area and report associated hazards 5.3. Complete all necessary written documentation 5.4. Notify technicians, team leader and/or supervisors of any abnormal operational conditions within mine

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

RIIMPG301A Control and monitor automated plant/machinery

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 RIIMPG301D Control and monitor automated plant/machinery

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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 requirements, procedures and techniques for the safe, effective and efficient controlling and monitoring of automated plant/machinery including:
 - establishing work plans
 - assessing operational capability and limitation of equipment used
 - assessing capability and limitation of work processes selected
 - conducting prestart, shutdown and secure of equipment
 - identifying and reporting all potential hazards, risks, environmental issues and ground conditions
 - applying problem solving and troubleshooting techniques
 - optimising production outputs
 - applying diagnostic techniques
 - conducting minor maintenance and adjustments requirements
 - conducting housekeeping
 - applying knowledge of mine emergency procedures and alarms
 - monitoring and operating manual and automatic ore transfer systems
 - identifying and solving electrical circuit problems
 - identifying and solving adjust control problems
 - apply environmental constraints and procedures

- works effectively with others to undertake and complete the control and monitoring of automated plant/machinery that meets all of the required outcomes, including
 - using a range of communications techniques and equipment to convey information to others
 - maintaining written and verbal reporting requirements and procedures
 - communicating to confirm work/plans/specifications
- demonstrates completion of controlling and monitoring automated plant/machinery that safely, effectively and efficiently meets all of the required outcomes on more than one (1) occasion including:
 - controlling data acquisition system and associated equipment
 - monitoring ore transfer systems through control and data acquisition and closed circuit television
 - identifying and correcting minor deviations of equipment systems normal operating parameters
 - maintaining written equipment records
 - controlling closed circuit television equipment

Knowledge Evidence

The candidate must demonstrate knowledge in controlling and monitoring automated plant/machinery through:

- applying legislative, organisation and site requirements and procedures for:
 - risk assessment and management
 - statutory compliance
 - work health and safety
 - completing control and monitor automated plant/machinery operational checks
 - hazard identification, risk assessment and response
 - complying with worksite coordination
 - optimizing productivity
- identifying equipment types, characteristics, technical capabilities and limitations
- applying operational, maintenance and basic diagnostic procedures
- applying site isolation and traffic control responsibilities and authorities
- interpreting and complying with control and monitor automated plant/machinery methods
- monitoring quality assurance systems and standards
- applying DC and electrical circuit and control principles
- interpreting and complying with materials safety data sheets and materials handling methods
- applying electrical distribution principles
- identifying electrical accessories
- identifying
- identifying detection sensors
- identifying cables and wiring systems

- understanding and using circuit protection
- understanding transmitters and converters
- applying distributive control

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.
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*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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