



Australian Government

RIIPRO502D Develop, implement and maintain process control systems

Release: 2

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Modification History

Release	Comment
1	This unit replaces RIIPRO502A Develop, implement and maintain process control systems
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 develops a participant's skills and knowledge required to develop, implement and maintain process control systems in Metalliferous mining and Extractive.

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

Extractive

Metalliferous mining

Elements and Performance Criteria

1. Plan and prepare for process control systems design	1.1 Access, interpret and apply process control systems 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 Analyse and select equipment to meet the process control needs of the operation 1.5 Optimise mechanical and technological advances in the bulk extraction, transport, handling and processing of extractive materials 1.6 Initiate, encourage and monitor safe practices, policies and
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	training 1.7 Survey and record field conditions 1.8 Design, evaluate, measure and cost parameters, and identify downstream effects 1.9 Consult suppliers/manufacturers in developing solutions to particular problems, projects and needs 1.10 Compare analysis systems and recommend solutions based on defined parameters 1.11 Plan monitoring and control systems for effective management of the processing of materials and reliability of equipment 1.12 Plan and maintain accurate records for budgeting and future decision making 1.13 Negotiate with electrical suppliers for power requirements, cabling, size of supply equipment, over-use penalties, tariffs, means of improving efficiency and back-up supplies
2. Maintain quality of extractive materials	2.1 Implement and monitor accepted testing procedures used for assessing material quality in site laboratories 2.2 Engage expertise to perform tests that achieve consistent results, in line with site specific quality systems that conform to independent testing authority standards 2.3 Apply appropriate work practices covering all potential environmental problems 2.4 Ensure that materials are blended to product quality standards and the customer's satisfaction 2.5 Recommend adjustments to production process to meet production quality parameters in accordance with site quality plan
3. Provide advice to customers	3.1 Consult with customers/clients and offer a range of materials and their properties available to suit identified needs of customer 3.2 Identify material properties for various uses
4. Resource and utilise environmental knowledge	4.1 Collect and use data on existing climate, air quality, water resources, flora and fauna and socio-economic items in pre-production, operational and post-production control phases
5. Carry out fault diagnosis and repairs	5.1 Perform routine monitoring and maintenance procedures for testing equipment in line with manufacturers specification 5.2 Ensure that laboratory personnel are trained to maintain effectiveness of site quality system

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

RIIPRO502A Develop, implement and maintain process control systems

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 RIIPRO502D Develop, implement and maintain process control systems

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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 relevant legislation, documentation, policies and procedures
- implements procedures and techniques for the safe, effective and efficient implementation and maintenance of process control systems including:
 - interpreting and applying geological and survey data
 - providing team leadership
 - identifying and addressing training needs
 - monitoring and maintaining operations
 - implementing production operations analysis and reviews
 - applying projects and tasks management techniques
 - implementing performance audit procedures
 - accessing and using appropriate technologies
 - managing report preparation and presentation
- identifies viable options for the selection of process control systems that best meet the required outcomes including:
 - choosing appropriate operational techniques
 - choosing and assigning appropriate plant and equipment
 - evaluating new and used equipment
 - ensuring delivery and maintenance of services to required specifications

- works effectively with others to undertake and complete the development, implementation and maintenance of process control systems including:
 - managing people and processes
 - implementing conflict resolution
 - coordinating human, financial and physical resources
 - developing, initiating and administering work plans
 - interpret and apply operational performance data
 - negotiating with internal and external stakeholders
- demonstrates completion of the development, implementation and maintenance of process control systems that safely, effectively and efficiently meets all of the required outcomes on more than one (1) occasion including:
 - identification of the relevant information and scope of the work
 - identifying, selecting and sourcing the required equipment
 - monitoring the outcomes against the plans, parameters, and budget
 - resolving anomalies and implementing improvements to the systems

Knowledge Evidence

The candidate must demonstrate knowledge in developing, implementing and maintaining process control systems through:

- programmable logic controllers
- team management
- managing organisational objectives
- resource monitoring
- computer applications
- managing statistical data and reporting
- characteristics of the site products and services

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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