



Australian Government

RIIARO402 Optimise performance of complex control systems in autonomous operations

Release: 1

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Modification History

Release 1	This version first released with RII Resources and Infrastructure Industry Training Package Version 9.0. Newly created unit.
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Application

This unit describes the skills and knowledge required to optimise the performance of complex control systems in autonomous operations in order to meet production and performance targets relating to safety, efficiency, and quality. It includes monitoring complex systems and processes, and responding to abnormal situations.

The unit applies to those who manage multiple complex tasks in a dynamic, high consequence autonomous environment to control complex production systems.

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

Unit Sector

Coal mining

Metalliferous mining

Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
Elements describe the essential outcomes	Performance criteria describe the performance needed to demonstrate achievement of the element
1. Operate complex systems and processes in autonomous operations	1.1 Operate within defined parameters to monitor processes and systems and the interfaces between them 1.2 Monitor data and information sources to build a comprehensive picture of continuing status and dynamic interactions occurring within area of own responsibility 1.3 Monitor ongoing status in relation to safety, work priorities, progress against targets, equipment, people, systems and processes, environmental factors and constraints that impact planned work outcomes

ELEMENT	PERFORMANCE CRITERIA
	1.4 Monitor quality and quantity of product and wastes generated to assure continuing production 1.5 Use information sources to identify patterns and trends to confirm current status or anticipate developing situations
2. Respond to abnormal situations	2.1 Develop and implement options and contingency plans based on validation of information 2.2 Prioritise and resolve alarms and/or warning system alerts in accordance with organisational procedures 2.3 Respond to changed conditions in a timely manner or follow escalation protocols according to the situation 2.4 Minimise impact of mechanical and product factors and environmental conditions affecting production 2.5 Ensure waste and environmental exceedances are treated in accordance with procedures and waste disposed is within environmental and licence limit
3. Identify and implement optimisation activities	3.1 Identify and communicate actual performance targets according to daily plans and schedules 3.2 Analyse data to determine possible causes or factors involved in suboptimal performance and determine most probable cause 3.3 Determine preferred actions required and possible limitations and/or constraints 3.4 Determine impact of possible upstream and downstream effects and confirm feasibility of preferred action 3.5 Plan and communicate optimisation activities in consultation and close cooperation with stakeholders 3.6 Evaluate, record and communicate optimisation outcomes in accordance with organisational 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	Interprets a range of mathematical information embedded in a range of familiar and less familiar documents
Writing	Prepares clear, sequenced information to support performance of control systems
Initiative and	Generates options to address abnormal situations

SKILL	DESCRIPTION
enterprise	

Unit Mapping Information

No equivalent unit. Newly created unit.

Links

Companion Volume Implementation Guide is found on VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=88a61002-9a21-4386-aaf8-69c76e675272>