



**Australian Government**

# **RIIARO406 Optimise automated haulage operations**

**Release: 1**

# RIIARO406 Optimise automated haulage operations

## Modification History

|           |                                                                                                                                 |
|-----------|---------------------------------------------------------------------------------------------------------------------------------|
| Release 1 | This version first released with RII Resources and Infrastructure Industry Training Package Version 9.0.<br>Newly created unit. |
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## Application

This unit describes skills and knowledge required to optimise the performance of automated haulage operations to meet performance targets relating to quality, efficiency, and safety. It includes optimising automated haulage system performance, monitoring processes and outcomes, and responding to abnormal situations.

The unit applies to those who manage automated haulage operations from within a control centre environment.

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. Optimise automated haulage system performance | 1.1 Control access to work areas in accordance with entry and exit procedures to ensure the safety of people and efficiency of equipment operating in the vicinity of automated haulage equipment<br>1.2 Build, configure, update and/or validate spatial mine model and escalate when irregularities are identified<br>1.3 Optimise fleet management and interface between automated and manually operated vehicles to meet the mine shift plan<br>1.4 Monitor interface with plant operations to optimise productivity and manage contingencies in accordance with |

| ELEMENT                                             | PERFORMANCE CRITERIA                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
|-----------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                                     | shift plan and organisational protocols                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| 2. Monitor automated haulage processes and outcomes | <p>2.1 Use control system data to maintain equipment performance within required parameters</p> <p>2.2 Monitor machine performance to meet key performance indicators relating to dig rates, hang and queue times; and make adjustments as needed</p> <p>2.3 Anticipate issues and plan for contingencies to minimise impact on the current plan by monitoring sensors, camera feeds and/or positional data</p> <p>2.4 Monitor and direct equipment in the pit area and oversee the electronic boundaries/cables that protect personnel to ensure every piece of equipment and each person is situationally aware of autonomous operation status</p> <p>2.5 Monitor implementation of safety controls relating to hazards to enable timely intervention when needed</p>                                                          |
| 3. Respond to abnormal situations                   | <p>3.1 Prioritise and resolve alarms and warning system alerts in accordance with organisational procedures</p> <p>3.2 Use real time and/or trend data to compensate for and adjust to actual or potential adverse situations within scope of own responsibility</p> <p>3.3 Confirm integrity of data from obstacle or collision, and mechanical/electrical failure detection systems and request site personnel to investigate when required</p> <p>3.4 Confirm and monitor adequate positive isolation of equipment when personnel are in proximity</p> <p>3.5 Coordinate person/machine intervention to restart or recover stationary automated vehicles in line with recovery procedures</p> <p>3.6 Respond to changed conditions in designated area/s of control in accordance with organisational escalation protocols</p> |

## 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>Interprets and uses a range of mathematical information relating to data generated during automated haulage operations</li> </ul> |

## 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>