



Australian Government

RIIARO408 Optimise automated wet processing plant 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 automated wet plant operations to meet performance targets relating to quality, efficiency and safety. It includes optimising the performance of wet processing plant control systems, monitoring processes and outcomes from wet processing plant, and responding to abnormal situations

The unit applies to those who oversee automated wet plant operations at locations remote from the control centre. They control fixed plant, such as primary, secondary, and tertiary crushers; conveyors; reclaimers; scrubbers; stackers; screening and de-sanding units; pumps; cyclones, up-current, rougher and scavenger spiral classifiers; vacuum filter belts; and residue thickeners.

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 performance of wet processing plant control systems	1.1 Confirm availability and operational status of wet processing and beneficiating plant components required to meet the plan of the day 1.2 Optimise product throughput required by the plan of the day by troubleshooting flow problems peculiar to wet plant processing 1.3 Identify and address factors preventing optimal performance

ELEMENT	PERFORMANCE CRITERIA
	of plant and make adjustments in accordance with organisational protocols 1.4 Interpret trends and control system data to take proactive action to adjust production, control variations and avoid unplanned downtime 1.5 Identify possible impact on upstream and downstream processes and communicate with the site regarding information and solutions before making changes to maintain optimal performance of wet processing plant
2. Monitor processes and outcomes from wet processing plant	2.1 Monitor status of individual wet processing plant components to optimise interfaces between multiple control loops within plant operations 2.2 Monitor production of concentrate, middlings and tailings in the wet processing circuits of the plant in accordance with equipment capability and limitations 2.3 Monitor quality and quantity of product to assure continuing supply that meets planning priorities 2.4 Monitor and address environmental factors relating to wet processing, safety, progress against targets and any constraints that may potentially impact process outcomes 2.5 Monitor sampling data on product quality and production rates to assure continuing supply that meets planning priorities 2.6 Undertake modelling and management of stockpiles to enable customers' needs to be met for required product as scheduled in plan of the day
3. Respond to abnormal situations	3.1 Use plan of the day, trend data and alarms to prioritise and resolve faults in accordance with organisational procedures 3.2 Confirm the integrity of data from plant detection systems and request site personnel to investigate when required 3.3 Use real time and/or trend data to adjust or compensate for actual or potential adverse situations within designated scope of responsibility 3.4 Respond to changed conditions in designated area/s of control in line with organisational protocols and follow escalation protocols according to the situation 3.5 Update delay accounting and trend databases and maintain a running log of resolved faults and items requiring attention

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 and uses a range of mathematical information relating to sampling and trend data associated with automated wet processing plant operations • Represents mathematical information and data when undertaking modelling and updating trend databases

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>