



Australian Government

RIIPRE301D Conduct electrowinning/electro-refining operations

Release: 2

RIIPRE301D Conduct electrowinning/electro-refining operations

Modification History

Release	Comment
1	This unit replaces RIIPRE301A Conduct electrowinning/electrorefining operations
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 apply conduct electrowinning/electro-refining operations 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 for electrowinning/electro-refining	1.1 Access, interpret and apply c documentation and procedures for conducting electrowinning electro-refining operations and ensure the work activity is compliant 1.2 Receive, interpret and clarify shift changeover details 1.3 Communicate job requirements with other personnel 1.4 Select personal protective equipment appropriate for work activities 1.5 Select appropriate type of auxiliary equipment for work activities 1.6 Perform equipment pre-start checks 1.7 Identify, address and report potential risks and hazards
---	---

	1.8 Identify, address and report environmental issues 1.9 Adhere to emergency procedures 1.10 Use dust suppression and extraction methods 1.11 Ensure area is well ventilated
2. Monitor electrowinning/electro-refining	2.1 Monitor, gather and interpret data from equipment indicators 2.2 Monitor and adjust solution volume, feed quality and rate of flow in cells 2.3 Monitor cooling system according to site procedures 2.4 Monitor and maintain temperature, voltage and amps. 2.5 Continuously monitor operations 2.6 Minimise and monitor emissions 2.7 Complete all required documentation 2.8 Pass on end of shift information to oncoming shift 2.9 Conduct cell inspections 2.10 Observe and follow electrical safety techniques
3. Pull and strip plates	3.1 Ensure that electrowinning/electro-refining systems are safe for plate removal 3.2 Pull and strip plates using appropriate equipment 3.3 Inspect electrodes and identify rejects 3.4 Strip plates to site requirements 3.5 Stack and dispatch stripping products 3.6 Clean plates for reuse 3.7 Handle stripping products safely
4. Shutdown in sequence and/or isolate equipment	4.1 Shutdown or isolate equipment based on process and safety requirements 4.2 Perform post shutdown or isolation checks 4.3 Plan for shutdown/isolation and returning cells to service
5. Conduct housekeeping activities and return cell to service	5.1 Clean plant and maintain condition of equipment, ensure suitability for use and address/report issues 5.2 Manage and/or report hazards, and maintain a safe working environment 5.3 Maintain bus-bar cleanliness 5.4 Isolate cell and remove scale from anodes and cell according to site requirements

	5.5	Dispose of scale in accordance with site procedures
	5.6	Return cell to service in correct sequence
	5.7	Process records

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

RIIPRE301A Conduct electrowinning/electro-refining operations

Links

Companion Volume implementation guides are found in VETNet -

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