



Australian Government

RIIPBE311D Conduct magnetic separation

Release: 2

RIIPBE311D Conduct magnetic separation

Modification History

Release	Comment
1	This unit replaces RIIPBE311B Conduct magnetic separation.
2	Editorial corrections. 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 conduct magnetic separation in Metalliferous and Coal 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

Coal mining

Metalliferous mining

Elements and Performance Criteria

1. Plan and prepare for magnetic separation	1.1 Access, interpret and apply magnetic separation documentation and ensure the work activity is compliant 1.2 Obtain, read, interpret clarify and confirm work requirements 1.3 Coordinate and communicate with other personnel using approved communication methods 1.4 Select and wear 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 to ensure equipment is
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	ready for operation 1.7 Identify and address potential risks, hazards and environmental issues, and implement control measures 1.8 Obtain and interpret emergency procedures, and be prepared for fire/accident/emergency 1.9 Use approved dust suppression and extraction methods 1.10 Ensure area is well ventilated
2. Start-up equipment in sequence	2.1 Carry out start-up procedures and complete start-up checks according to plant configurations and system requirements 2.2 Confirm plant is operational
3. Operate and monitor equipment	3.1 Read and interpret data from equipment indicators to determine separation efficiency 3.2 Continuously inspect and monitor plant and identify defects and potential problems 3.3 Assess mineral content of ore according to separation parameters 3.4 Make appropriate adjustments to separation process 3.5 Adjust equipment to agreed parameters 3.6 Control feed to separation equipment 3.7 Carry out operator level maintenance to maintain condition of equipment 3.8 Complete all required documentation concisely and on time 3.9 Pass on end of shift information to oncoming shift
4. Shutdown in sequence and/or isolate equipment	4.1 Shutdown and/or isolate equipment based on process and safety requirements 4.2 Perform post-shutdown and/or isolation checks 4.3 Restore plant to service
5. Conduct housekeeping activities	5.1 Clear work area and dispose of or recycle materials 5.2 Clean and maintain condition of equipment, ensure suitability for use, and address/report issues 5.3 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

RIIPBE311B Conduct magnetic separation

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 RIIPBE311D Conduct magnetic separation

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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 documentation, policies and procedures
- implements the requirements, procedures and techniques for the safe, effective and efficient completion of magnetic separation including:
 - conducting start up, shut down and/or isolation of equipment in sequence
 - operating and monitoring equipment
 - carrying out minor maintenance
 - conducting housekeeping activities
 - diagnosing faults, reporting defects and identifying repair requirements
 - applying lifting techniques (manual, automated)
 - accurate record maintenance
- works effectively with others to undertake and complete the magnetic separation in a way that meets all of the required outcomes including:
 - using a range of communications techniques and equipment to convey information to others
 - maintaining written and verbal reporting requirements and procedures
 - organising work activities to meet all task requirements
 - communicating clearly and concisely with others to receive and clarify work instructions

- demonstrates completion of conducting magnetic separation that safely, effectively and efficiently meets all of the required outcomes on more than one (1) occasion including:
 - reading and interpreting data from equipment indicators to determine separation efficiency
 - continuously inspecting and monitoring plant and identify defects and potential problems
 - assessing mineral content of ore according to separation parameters
 - making appropriate adjustments to separation process
 - adjusting equipment to agreed parameters

Knowledge Evidence

The candidate must demonstrate knowledge of conducting magnetic separation through:

- accessing, interpreting and applying organisation and site requirements and procedures for:
 - WHS, site safety and emergencies
 - environmental issues
 - equipment safety requirements
 - hazardous substance procedures and consequences of spills
 - operational procedures and checks
 - site procedures
 - equipment break-downs
 - equipment isolation
 - contaminant identification and treatment
 - reading and interpreting reports
- monitoring and applying equipment operating parameters
- monitoring separation plant
- interpreting metallurgical and technical data
- applying magnetic separation safety requirements
- identifying types of ores and grades

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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