



Australian Government

RIIPHA301D Conduct milling/grinding

Release: 2

RIIPHA301D Conduct milling/grinding

Modification History

Release	Comment
1	This unit replaces RIIPHA301A Conduct milling/grinding
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 conduct milling/grinding 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 milling/grinding process	1.1. Access, interpret and apply milling/grinding operations documentation and ensure the work activity is compliant 1.2. Obtain, read, interpret, clarify and confirm work requirements 1.3. Select and wear personal protective equipment appropriate for the activity 1.4. Obtain and interpret emergency procedures, and be prepared for fire/accident/emergency 1.5. Select, and check for faults, equipment/tools for work activities. 1.6. Identify and address potential risks, hazards and environmental issues, and implement control measures 1.7. Communicate with other personnel using approved
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	communication methods 1.8. Select appropriate auxiliary equipment for work activities 1.9. Use approved dust suppression and extraction methods and ensure area is well ventilated
2. Start-up equipment in sequence	2.1. Carry out start-up procedures and complete start-up checks 2.2. Confirm plant is operational
3. Operate and monitor equipment and lubrication system	3.1. Read and interpret data from equipment indicators 3.2. Inspect plant 3.3. Adjust equipment to optimise plant performance 3.4. Control feed to plant 3.5. Monitor reagent additions 3.6. Monitor lubrication system to ensure that oil and grease levels are maintained 3.7. Carry out operator level maintenance 3.8. Complete all required documentation, clearly, concisely and on time 3.9. Communicate verbally or in writing end of shift information to oncoming shift
4. Monitor and control classification	4.1. Check for density and/or size of ore according to specified parameters 4.2. Adjust and calibrate equipment where required to meet density requirements 4.3. Accurately sample and record density of product
5. Charge mill	5.1. Select grinding media type and quantity according to metallurgical requirements 5.2. Charge mill as required
6. Conduct housekeeping activities	6.1. Clear work area and dispose of or recycle materials 6.2. Clean and maintain condition of equipment, ensure suitability for use, and address/report issues 6.3. Process records
7. Shut down in sequence and/or isolate equipment	7.1. Clear ore from milling/grinding equipment before commencing shutdown 7.2. Shut down or isolate equipment based on process and safety requirements

	7.3. Perform post shut down or isolation checks
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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

RIIPHA301 Conduct milling/grinding

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 RIIPHA301D Conduct milling/grinding

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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 applicable legislation, documentation, policies and procedures
- implements requirements, procedures and techniques for the safe, effective and efficient completion of milling/grinding operations, including:
 - starting up and shutting down equipment in sequence
 - selecting and using the required hand and power tools
 - operating and monitoring equipment
 - identifying and diagnose faults
 - completing required documentation
 - conducting housekeeping activities
 - operating lift equipment (manual, cranes and loads)
- works effectively with others to undertake and complete milling/grinding operations 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 requirements
- demonstrates completion of milling/grinding operations that safely, effectively and efficiently meets all of the required outcomes on more than one (1) occasion including:

- starting-up and operating equipment in sequence including:
 - inspect plant
 - adjust equipment to optimise plant performance
 - control feed to plant
- controlling and monitoring equipment and lubrication systems including:
 - check density and/or size of ore according to specified parameters
 - adjust and calibrate equipment where required to meet density requirements
 - sample and record density of product
- • charging the mill including:
 - select grinding media type and quantity according to metallurgical requirements
- shutting down in sequence and/or isolating equipment including:
 - clear ore from milling/grinding

Knowledge Evidence

The candidate must demonstrate knowledge in conducting milling/grinding through:

- applying legislative, organisation and site requirements and procedures for:
 - risk assessment and management
 - statutory compliance
 - complying with breakdown procedures
 - applying equipment safety requirements
 - complying with emergency procedures
 - complying environmental procedures
 - applying hazardous goods procedures and consequences of spills and hazardous goods
 - complying with WHS procedures
 - applying isolation procedures
- operating, maintaining and clean equipment
- identifying contaminants
- selecting cooling system
- identifying equipment processes, limitations and operating parameters
- selecting grinding media
- selecting lubrication system
- using metallurgical and technical data
- using and selecting milling circuit components and functions/milling principles
- applying operational procedures and checks
- complying with milling and grinding safety requirements
- identifying types of ores

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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