



Australian Government

RIIMSM305D Conduct materials extraction operations underground

Release: 2

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Modification History

Release	Comment
1	This unit replaces RIIMSM305A Conduct materials extraction operations underground
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 materials extraction operations underground in Metalliferous Mining (Small Mines).

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 (Small Mines)

Elements and Performance Criteria

1. Plan and prepare for materials extraction operations underground	1.1 Access, interpret and apply materials extraction operation documentation and ensure the work activity is compliant 1.2. Obtain, read, interpret, clarify and confirm work requirements 1.3. Select, and check for faults, relevant tools/equipment for the activity 1.4. Survey mine workings to verify planned operation 1.5. Obtain and interpret emergency procedures, and be prepared for fire/accident/emergency 1.6. Select and wear personal protective equipment appropriate for work activities
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	1.7. Obtain and interpret emergency procedures, and be prepared for fire/accident/emergency 1.8. Inspect shaft and roof stability 1.9. Establish communication system, methods and protocols with other personnel
2. Operate machinery and equipment to extract materials	2.1. Coordinate mining activities with others throughout the work activity 2.2. Conduct machinery and equipment pre-start, start-up, shutdown and isolation procedures 2.3. Drive/manoeuvre machinery to extraction location 2.4. Drive and operate machinery and equipment to extract and load materials 2.5. Cut drives and faces to planned sequence and site conditions, maintaining operational parameters in accordance with the mine work plan 2.6. Monitor systems alarms, and identify and rectify factors adversely affecting production 2.7. Identify/monitor and respond to changing geological conditions to maintain safety and production levels 2.8. Continually monitor hazards and risks, and ensure safety of self, other personnel, plant and equipment
3. Carry out operator maintenance	3.1. Clear work area and dispose of or recycle materials 3.2. Clean and maintain condition of equipment, ensure suitability for use, and address/report issues 3.3. Manage and/or report hazards, and maintain a safe working environment 3.4. 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

RIISMS305A Conduct materials extraction operations underground

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 RIIMSM305D Conduct materials extraction operations underground

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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 the requirements, procedures and techniques for the safe, effective and efficient completion of underground materials extraction operations including:
 - selecting and using relevant tools & equipment
 - accessing, interpreting and applying manufacturer's/supplier's manuals
 - applying diagnostic and fault finding techniques
 - maintaining equipment records
- works effectively with others to undertake and complete the conduct of underground materials extraction operations that meets all of the required outcomes including:
 - communicating clearly and concisely with others to confirm instructions
 - organising and prioritising work activities
- demonstrates completion of conducting materials extraction operations underground that safely, effectively and efficiently meets all of the required outcomes on more than one (1) occasion including:
 - driving and manoeuvring machinery to extraction location
 - operating machinery and equipment to extract and load materials
 - cutting drives and faces to planned sequence and the mine work plan
 - carrying out basic operator maintenance

Knowledge Evidence

The candidate must demonstrate knowledge in conducting materials extraction operations underground through:

- accessing, interpreting and applying the organization and site requirements and procedures for:
 - working underground and equipment operation
 - emergency response
 - pillar extraction methods and safety requirements
 - hazardous materials handling
 - environmental issues
 - operating hoisting systems
 - assessment of mine ground conditions
 - machinery and equipment operation and maintenance
- accessing, interpreting and applying machinery and equipment characteristics, technical capabilities and limitations
- accessing, interpreting and applying mine geology and survey data associated with ore-bearing ground
- identifying ventilation systems
- accessing, interpreting and applying site environmental requirements and constraints relevant to machinery and equipment operations
- identifying pillar configuration, design and layout
- identifying characteristics and properties of roofs and walls
- being prepared for fire/accident/emergency

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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