



Australian Government

RIIMSM302D Plan small mine operations

Release: 2

RIIMSM302D Plan small mine operations

Modification History

Release	Comment
1	This unit replaces RIIMSM302A Plan small mine 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 plan small mine operations 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 small mine operations planning	1.1. Access, interpret and apply small mine operations documentation and ensure the work activity is compliant 1.2. Plan location of access shaft on a virgin claim to avoid potential ore-bearing ground 1.3. Design and plan shaft to minimise impact on the environment 1.4. Plan location of access shaft on a virgin claim to allow effective location, organisation and access to other mine facilities 1.5. Establish location of a second means of access (secondary shaft) to allow most effective exit from the mine in emergency situations 1.6. If claim is previously mined, inspect conditions of existing shafts to determine the most appropriate access and secondary shafts
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	1.7. Ensure that the access shaft is located in the appropriate place in relation to the planned mine ventilation system 1.8. Plan layout and configuration of surface facilities in relation to access and secondary shaft 1.9. Record shaft location on the mine plan
2. Design and plan location of ventilation shafts or drill holes	2.1. Plan the mining sequence throughout the life of the mine to determine the location of ventilation shafts or drill holes 2.2. Design and determine the location of ventilation shafts for any proposed secondary ventilation system to deliver fresh air to all active drives
3. Design and plan mine workings	3.1. Design mine workings to facilitate minerals discovery 3.2. Design and plan the drive pattern, opening size and development sequence to best extract minerals and for mine ground stability 3.3. Design mine layout to maximise production and movement of materials to the surface 3.4. Determine room and pillar configuration and plot on the mine plan
4. Design and plan materials handling process and equipment	4.1. Design and plan the handling of waste material stored on the surface of the mine 4.2. Design and plan for the installation of hoisting systems and equipment to meet materials movement and compliance documentation 4.3. Plan the system and method for the storage, transport and handling of hazardous materials and/or explosives
5. Develop the mine safety management plan	5.1. Develop, in consultation, the WHS policy for the mine's operations 5.2. Develop, in consultation, and document procedures and methods for the factors covered by the mine safety management plan 5.3. Design and develop, in consultation, document control documents and log book 5.4. Gain approval for the Mine Safety Management Plan from relevant authorities/agencies

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

RIIMSM302A Plan small mine operations

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 RIIMSM302D Plan small mine operations

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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 planning small mine operations including:
 - identifying geology associated with ore-bearing ground, & assessing mine ground conditions
 - maintaining log book and records
 - designing and documenting procedures
 - designing systems for environmental constraints
 - designing disposal systems for environmentally sensitive fluids and materials
 - applying design and planning principles and methods
 - applying operational safety requirements to mine planning
- works effectively with others to undertake and complete the planning of small mine operations that meets all of the required outcomes including:
 - consulting with stakeholders to develop the mine safety management plan
- demonstrates completion of planning small mine operations that safely, effectively and efficiently meets all of the required outcomes on more than one (1) occasion including:
 - identifying the scope of and conducting inspection of access shaft
 - identifying and establishing location of a second means of access
 - planning the mining sequence throughout the life of the mine to determine the location of ventilation shafts or drill holes
 - designing and planning the mine workings

- designing and planning the handling of waste material stored on the surface of the mine

Knowledge Evidence

The candidate must demonstrate knowledge in planning small mine operations through:

- accessing, interpreting and applying legislative, organization and site requirements and procedures for:
 - emergency response
 - work, health and safety
 - environmental issues
 - materials handling and transport
 - hazardous materials handling
 - assessment of mine ground conditions
 - identifying hazards affecting pillar design and development
 - operating hoisting systems
- accessing, interpreting and applying;
 - geology associated with ore-bearing ground
 - shaft design requirements and parameters
 - mine layout principles and design parameters
 - design criteria for planning mine operation
 - principles of ventilation and air flow
 - surface installations and equipment
 - pillar configuration/pillar design and layout
 - characteristics and properties of roofs
 - pillar extraction methods and safety requirements
 - mine safety management planning

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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