



Australian Government

**RIIRAI610D Establish and maintain
mechanical standard/engineering practices
for transport/production equipment**

Release: 3

RIIRAI610D Establish and maintain mechanical standard/engineering practices for transport/production equipment

Modification History

Release	Comment
1	This unit replaces RIIRAI610A Establish and maintain mechanical standard and engineering practices for transport and production equipment
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 establish and maintain mechanical standard and engineering practices for transport and production equipment in Coal mining.

This unit is appropriate for those working in management or technical specialist roles.

No licensing, legislative or certification requirements apply to this unit at the time of publication

Unit Sector

Coal mining

Elements and Performance Criteria

1. Plan and prepare production and transport systems	1.1 Access, interpret and apply production and transport systems documentation and ensure the work activity is compliant 1.2 Obtain, read, interpret, clarify and confirm work requirements 1.3 Identify and address potential risks, hazards and environmental issues and implement control measures 1.4 Identify and confirm, in consultation, the requirements for, and purpose of, production and transport systems in accordance with the system of mining 1.5 Identify systems options from an analysis of all relevant
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	technical, operational and financial information 1.6 Establish specification for the production and transport system from a comprehensive analysis of operating requirements 1.7 Select the preferred systems options on the basis of performance against specification requirements
2. Select equipment for production and transport systems	2.1 Identify the mechanical requirements for and purpose of transport and production equipment against systems requirements 2.2 Conduct a detailed scoping of the operational production and transport systems requirements and develop key selection criteria, including hazard identification and risk analysis 2.3 Establish specification for the required production and/or transport equipment 2.4 Select the preferred equipment solutions on the basis of performance against specification requirements
3. Establish systems and procedures to install and commission equipment	3.1 Establish systems to identify hazards and analyse and evaluate risks associated with the installation 3.2 Plan and prepare for integration of new and existing mine production and transport systems and processes 3.3 Establish procedures for installing and commissioning production and transport systems and equipment 3.4 Establish systems and procedures, to satisfy identified production and transport systems training requirements
4. Establish systems for the operation and maintenance of production and transport systems and equipment	4.1 Establish and document, operational procedures for production and transport systems and equipment 4.2 Establish and document, maintenance procedures for production and transport systems and equipment from site and legislative requirements 4.3 Establish and document, procedures for reviewing and modifying work processes 4.4 Establish and document, emergency response and evacuation plans and procedures 4.5 Establish the system of recording and reporting production and transport equipment information
5. Establish systems for audit and review of production and transport systems and equipment	5.1 Establish procedures to audit and review equipment compliance 5.2 Identify and assess future production and transport systems and equipment requirements, and incorporate into planning processes 5.3 Establish procedures to audit and review the currency and

	compliance of operation and maintenance relating to production and transport systems and equipment 5.4 Establish procedures for incorporating feedback into the audit/review system 5.5 Establish procedures to confirm the currency, relevance and compliance of the training program against identified requirements 5.6 Establish procedures for response to instances of non-compliance or other discrepancies/deficiencies revealed by audit 5.7 Establish procedures to audit emergency response and evacuation systems for compliance
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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

RIIRAI610A Establish and maintain mechanical standard and engineering practices for transport and production equipment

Links

Companion Volume Implementation Guides are available from VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=88a61002-9a21-4386-aaf8-69c76e675272>

Assessment Requirements for RIIRAI610D Establish and maintain mechanical standard/engineering practices for transport/production equipment

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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 legislation, documentation, policies and procedures
- engineering practices for transport and production equipment
- implements procedures and techniques for the safe, effective and efficient completion of the establishing and maintenance of mechanical standard and engineering practices for transport and production equipment including:
- accessing, reading, interpreting and applying:
 - legislative, organisation and site requirements and procedures
 - technical information
 - the principles of mine design
 - hazard identification and risk management processes
 - work planning and coordination processes
 - training needs analysis
 - manufacturers' instructions
 - conducting briefings and handovers
- works effectively with others to establish and maintain mechanical standard and engineering practices for transport and production equipment including:
 - managing people and processes
 - coordinating human, financial and physical resources

- developing, initiating and administering work plans
- interpreting and applying operational performance data
- engaging internal and external stakeholders
- demonstrates completion of the establishing and maintenance of mechanical standard and engineering practices for transport and production equipment that safely, effectively and efficiently meets all of the required outcomes on more than one (1) occasion including:
 - identifying the relevant information and scope of the work
 - identifying the full range of specification requirements
 - identifying all aspects of transport and production equipment
 - identifying systems options from an analysis of all relevant technical, operational and financial information
 - selecting the preferred equipment solutions on the basis of performance against criteria
 - establishing procedures for reviewing and modifying work processes
 - developing the audit, review and reporting systems

Knowledge Evidence

The candidate must demonstrate knowledge in establishing and maintaining mechanical standards and engineering practices for transport and production equipment through:

- legislative, organisation and site requirements and procedures for;
 - mine operation
 - environmental monitoring
 - risk management
 - emergency response and evacuation
 - mine plans
 - firefighting systems
 - transport rules
 - maintenance schemes
 - standard operating procedures
 - training
 - testing on diesel vehicles
 - battery charging
 - underground fuel depots
 - conveyor belts
- applying geological structures data
- mine design relating to production and transport systems and equipment
- production and transport systems and equipment management requirements
- mine reporting procedures

- production and transport equipment and systems (types, uses, characteristics and limitations appropriate for safe operation at the mine site)
- energy sources, including electrical, hydraulic, pneumatic, diesel
- safety design features of production and transport systems
- using stores system
- specification design criteria, including noise, dust, lighting, ergonomics, remote control, physical clearance, confined space, visibility, seating vibration and machine equipment and personal protection
- assessment systems
- computer based systems relating to production and transport systems

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	3-6	3 Years

(Quarrying)		
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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