



Australian Government

RIICTC302D Line tunnel

Release: 2

RIICTC302D Line tunnel

Modification History

Release	Comment
1	This unit replaces RIICTC302A Line tunnel
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 line tunnels in Civil Construction.

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

Civil construction

Elements and Performance Criteria

1. Plan and prepare to line tunnel	1.1 Access, interpret and apply tunnel lining documentation and ensure the work activity is compliant 1.2 Obtain, interpret, clarify and confirm work instructions before proceeding 1.3 Identify, obtain and implement the traffic signage requirements 1.4 Select and wear personal protective equipment appropriate for work activities 1.5 Select and check for faults plant, tools and equipment to carry out tasks 1.6 Identify, address and report environmental issues, potential hazards and risks
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	1.7 Obtain and interpret emergency procedures, and be prepared for fire/accident/emergency
2. Prepare tunnel face for concrete/shotcrete	2.1 Install rock anchors and/or bolts to designed locations 2.2 Prepare reinforcing mesh in accordance with tunnel shape and designed lining, where specified 2.3 Locate and secure reinforcing mesh in place 2.4 Fix dowels to wall face to provide depth gauge to thickness of concrete/shotcrete 2.5 Install drainage to the tunnel roof and walls where specified
3. Line/shotcrete tunnel face	3.1 Set up pump, pipelines and spray equipment and check for serviceability and operation 3.2 Prepare and control shotcrete mix 3.3 Operate pump 3.4 Prepare formwork and set to specifications 3.5 Provide support to shotcreter in monitoring supply and assist with elevated platform and allied equipment 3.6 Apply shotcrete consistently
4. Clean up	4.1 Clear work area and dispose of or recycle materials 4.2 Clean, check, maintain and store plant, tools and equipment 4.3 Carry out housekeeping activities

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

RIICTC302A Line tunnel

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 RIICTC302D Line tunnel

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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 lining tunnels including:
 - applying equipment/manual handling techniques
 - selecting and using relevant tools and equipment
 - identifying, reporting and recording hazards and risks
 - interpreting engineering drawings
 - identifying and reporting defects
- works effectively with others to undertake and complete the lining of tunnels that meets all of the required outcomes including:
 - organising work activities to meet all task requirements
 - communicating clearly and concisely with others to receive and clarify work instructions
 - using a range of communication techniques and systems such as signage to advise others of work activity and exclusion zone
- demonstrates completion of line tunnelling that safely, effectively and efficiently meets all of the required outcomes on more than one (1) occasion including:
 - completion of drilling and installation of rock bolts, application of reinforcing mesh and shotcreting/concreting of a minimum of a five (5) lineal metre section of tunnel

Knowledge Evidence

The candidate must demonstrate knowledge in lining of tunnels through:

- identifying materials used in tunnel lining
- applying construction principles
- identifying equipment types, characteristics, technical capabilities and limitations
- complying with project quality requirements
- identifying and using civil construction terminology
- complying with site isolation and traffic control responsibilities and authorities
- complying with safety data sheets and materials handling methods
- 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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