



Australian Government

RIICTT303D Control micro tunnelling and pipe-jacking

Release: 2

RIICTT303D Control micro tunnelling and pipe-jacking

Modification History

Release	Comment
1	This unit replaces RIICTT303A Control micro tunnelling and pipe-jacking
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 develops a participant's skills and knowledge required to control micro tunnelling and pipe-jacking in Civil construction.

This unit is appropriate for those working in operational roles.

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

Unit Sector

Civil construction

Elements and Performance Criteria

1. Plan and prepare to control micro tunnelling and pipe-jacking	1.1 Access, interpret and apply documentation and procedures for controlling micro tunnelling and pipe-jacking and ensure compliance to the work activity 1.2 Obtain, confirm and apply written and verbal work instructions 1.3 Obtain, confirm and apply safety requirements from the site safety plan 1.4 Identify, obtain and implement signage requirements from the project traffic management plan 1.5 Identify and select plant, tools and equipment, check for serviceability and rectify or report any faults 1.6 Identify, confirm and apply environmental protection requirements from the project environmental management plan,
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2. Prepare for boring operations	2.1 Determine location, alignment direction, level and grade of bore from drawings and specifications 2.2 Use above and below ground survey instruments to determine the bore pathway for underground vertical and horizontal alignment 2.3 Conduct visual geological investigation of alignment to determine the differing soil types and groundwater conditions 2.4 Select bore head and drilling fluid for the strata 2.5 Position, anchor/stake down boring equipment
3. Conduct equipment checks	3.1 Identify, confirm and apply safety requirements 3.2 Carry out start-up, shutdown and communication procedures 3.3 Check equipment controls and functions, including implements or other attachments, anchors and/or stabilising equipment for serviceability and report faults 3.4 Conduct inspection and fault finding 3.5 Carry out equipment maintenance tasks regularly
4. Drive bore hole	4.1 Construct launch and receiving pits to accommodate bore rig and tools 4.2 Identify and implement trench collapse prevention for launch and receiving pits 4.3 Establish thrust wall in accordance with pipe size and soil characteristics 4.4 Determine traverse line of pilot hole to receiving pit 4.5 Confirm traverse line of pilot hole to receiving pit at specified distances 4.6 Collect and dispose spoil 4.7 Select and attach augers to drilling machine 4.8 Jack through casings/pipes to receiving pit 4.9 Monitor equipment for continuity of production in varied site conditions
5. Clean up	5.1 Clear work area and dispose of, reuse or recycle materials 5.2 Clean, check, maintain and store plant, tools and equipment

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

RIICTT303A Control micro tunnelling and pipe-jacking

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 RIICTT303D Control micro tunnelling and pipe-jacking

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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 controlling of micro tunnelling and pipe-jacking including:
 - selecting and using the required plant, tools and equipment
 - preparing for boring operations
 - carrying out start-up and shutdown activities
- works effectively with others to undertake and complete controlling of micro-tunnelling and pipe-jacking tasks that meets all of the required outcomes including:
 - using a range of communication techniques and equipment to convey information to others
 - maintaining written and verbal reporting requirements and procedures
 - organising work activities to meet all task requirements
- demonstrates completion of conducting micro tunnelling and pipe-jacking that safely, effectively and efficiently meets all of the required outcomes on more than one (1) occasion including:
 - completing a minimum of fifty (50) metres micro-tunnelling and pipe-jacking
 - identify, obtain, confirm and apply work, safety and signage instructions and requirements
 - checking and inspecting equipment prior to use
 - preparing for bore operations

Knowledge Evidence

The candidate must demonstrate knowledge in controlling micro tunnelling and pipe-jacking through:

- using drilling fluids
- applying categories of horizontal directional drilling
- using laser control equipment
- applying manual handling techniques
- using electronic cable locating devices
- accessing and interpreting engineering drawings, plans and specifications
- identifying equipment types, characteristics, technical capabilities and limitations
- identifying and applying site isolation and traffic control responsibilities
- applying materials safety data sheets and materials handling methods
- using laser control equipment
- applying confined space entry techniques
- identifying, interpreting and using civil construction terminology

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
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		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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