



Australian Government

NWPNET020 Control electrical risk on metallic pipes

Release: 1

NWPNET020 Control electrical risk on metallic pipes

Modification History

Release 1. This is the first release of this unit of competency in the NWP National Water Training Package.

Application

This unit involves the skills and knowledge required to control electrical risk on metallic pipes.

It includes safely working on and assessing metallic pipes for electricity. It also includes using electrical detection devices, identifying yourself to customers and identifying utility assets.

This unit applies to those working as field and operational staff with responsibility for the control measures of high-risk electrical hazards. Those undertaking this unit would work independently under indirect supervision while performing routine tasks with a moderate level of complexity in a familiar context.

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

Pre-requisite Unit

Not applicable.

Competency Field

Networks

Unit Sector

Not applicable.

Elements and Performance Criteria

ELEMENTS

Elements describe the essential outcomes.

1 Prepare for work

PERFORMANCE CRITERIA

Performance criteria describe the performance needed to demonstrate achievement of the element.

1.1 Identify and locate area of work from job specifications, plans and diagrams

1.2 Conduct risk assessment for environmental safety

		according to workplace procedures
	1.3	Select safety and electrical equipment and fit and use personal protective equipment according to workplace procedures
	1.4	Identify yourself to your customers and determine customer needs
	1.5	Identify utility assets or services by contacting relevant authorities
2	Assess metallic pipes for electricity	
	2.1	Use electrical testing device to check for presence of electricity on metallic water pipe according to workplace procedures
	2.2	Follow organisational procedures when electricity is detected
	2.3	Identify and clean attachment points and apply the testing and monitoring equipment and bridging conductors if no electricity is detected
	2.4	Continue to enforce electrical control measures during pipe replacement
3	Finalise work	
	3.1	Store and secure equipment and materials according to manufacturer instructions
	3.2	Restore worksite to meet environmental and organisational requirements
	3.3	Report and tag any damaged or faulty equipment according to workplace procedures

Foundation Skills

Foundation skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Range is restricted to essential operating conditions and any other variables essential to the work environment.

Non-essential conditions may be found in the Companion Volume Implementation Guide.

Unit Mapping Information

This unit replaces and is equivalent to NWPNET003 Control electrical risk on metallic pipes.

Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=26336bc0-04e5-49d9-8c31-46c49b6a0037>

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Assessment Requirements for NWPNET020 Control electrical risk on metallic pipes

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Performance Evidence

Evidence required to demonstrate competence in this unit must be relevant to and satisfy all the requirements of the elements and performance criteria on at least one occasion and includes:

- applying bridging conductors
- contacting relevant authorities for the correct location of utilities or services
- identifying and selecting appropriate equipment
- reading plans and diagrams
- replacing metallic pipe according to manufacturer or workplace requirements
- testing of bridging conductors
- using electrical testing and monitoring safety devices

Knowledge Evidence

Evidence required to demonstrate competence in this unit must be relevant to and satisfy all the requirements of the elements and performance criteria and includes knowledge of:

- customer service procedures
- electrical testing
- equipment operation, capacity and limitations
- excavation procedures and site restoration
- metallic pipes including:
 - cast iron
 - copper pipe
 - ductile iron
 - galvanised pipe
 - mild steel
- relevant legislation, regulations and workplace procedures
- relevant authorities to contact for the correct location of utilities or services including Dial Before You Dig
- risk factors and potential hazards associated with metallic pipes

Assessment Conditions

Assessors must hold credentials specified within the Standards for Registered Training Organisations current at the time of assessment.

Assessment must satisfy the Principles of Assessment and Rules of Evidence and all regulatory requirements included within the Standards for Registered Training Organisations current at the time of assessment.

Assessment must occur in workplace operational situations where it is appropriate to do so; where this is not appropriate, assessment must occur in simulated workplace operational situations that replicate workplace conditions.

Assessment processes and techniques must be appropriate to the language, literacy and numeracy requirements of the work being performed and the needs of the candidate.

Resources for assessment must include access to:

- relevant and appropriate materials, tools, equipment and personal protective equipment currently used in industry
- applicable documentation including legislation, regulations, codes of practice, workplace procedures and operation manuals.

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