



Australian Government

RIICPL301E Install water mains pipelines

Release: 2

RIICPL301E Install water mains pipelines

Modification History

Release	Comments
Release 1	This version first released with RII Resources and Infrastructure Industry Training Package Version 6.0.

Application

This unit describes the skills and knowledge required to install water mains pipelines in civil construction. This includes setting out and excavating for installation, installing and testing mains pipe system.

It applies to those working in operational roles. They generally work under minimal supervision to undertake a broad range of tasks in varied work contexts, using some discretion and judgement in selecting equipment, services or contingency measures.

Licensing, legislative and certification requirements that apply to this unit can vary between states, territories, and industry sectors. Users must check requirements with relevant body before applying the unit.

Unit Sector

Civil construction

Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Plan and prepare to install water mains pipeline	1.1 Obtain, interpret, clarify and confirm work plans and specification requirements 1.2 Access, interpret and apply documentation required to install water mains pipelines and confirm work activity is compliant 1.3 Confirm and identify requirements for complying with environmental protection, safety and traffic management signage requirements 1.4 Select equipment and tools required for work activities and check for faults 1.5 Select and wear personal protective equipment according to site

ELEMENT	PERFORMANCE CRITERIA
	requirements 1.6 Identify and address potential risks, hazards and environmental issues, and implement control measures within scope of role 1.7 Obtain and interpret emergency procedures and identify steps required to respond to emergencies
2. Set out and excavate	2.1 Prepare work area and materials according to job requirements 2.2 Determine and apply dewatering requirements 2.3 Determine location, alignment direction, level and grade of mains pipe system 2.4 Set out works according to job requirements 2.5 Advise plant operator of excavation requirements and monitor levels 2.6 Install mains pipe system support mechanism according to safety and job requirements
3. Install pipeline	3.1 Lower and place pipes in position according to job requirements 3.2 Join pipes according to manufacturer specifications 3.3 Place pipes and fit valves, fittings and flow control devices according to job requirements 3.4 Continuously check alignment level and grade and confirm it meets job requirements 3.5 Position side support and overlay beside the pipes as required 3.6 Check mains pipe system support structure 3.7 Monitor backfill procedure and confirm work is completed to specification 3.8 Construct valve chambers, minor structures and thrust blocks according to job requirements
4. Test mains pipe system	4.1 Perform mains pipe system test procedures establishing pressurisation, functionality and serviceability 4.2 Complete records and report test results according to job requirements
5. Conduct clean-up activities	5.1 Clear work area and dispose of or recycle materials according to site requirements 5.2 Clean, check, perform maintenance on and store plant, tools and equipment according to manufacturer specifications and site requirements

Foundation Skills

This section describes those language, literacy, numeracy and employment skills that are essential to performance but not explicit in the performance criteria.

Skill	Description
Numeracy	<ul style="list-style-type: none">Calculates basic measurements including mass and dimensions
Self-management	<ul style="list-style-type: none">Monitors and minimises own exposure to worksite risks and hazards during work activities
Writing	<ul style="list-style-type: none">Completes documentation using sector specific vocabulary, grammatical structures and conventions

Unit Mapping Information

Supersedes and is equivalent to RIICPL301D Install water mains pipelines.

Links

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