



Australian Government

NWPNET044 Test and commission water distribution systems

Release: 1

NWPNET044 Test and commission water distribution systems

Modification History

Release	Comments
1	This unit was released in NWP Water Training Package release 1.0 and meets the Standards for Training Packages. This unit supersedes and is equivalent to NWP309B Test and commission water distribution systems. • Unit code updated • Content and formatting updated to comply with the new standards • All PC transitioned from passive to active voice • One new PC added to Element 5 • PC 3.1 removed • PC 3.2 and 3.3 • 5.1 & 5.2 merged

Application

This unit of competency describes the skills required to plan and implement the testing and commissioning of water distribution systems. The ability to interpret technical information, identify and assess hazards and perform technical testing procedures is essential to performance.

This unit applies to those working as field staff and operators with specific responsibility for commissioning water distribution systems, post-installation or repair, and for ensuring that the functioning of the system complies with relevant specifications and organisational requirements.

The skills and knowledge described in this unit must be applied within the legislative, regulatory and policy environment in which they are carried out. Organisational policies and procedures must be consulted and adhered to, particularly those related to WHS.

Those undertaking this unit would work under indirect supervision, while performing routine tasks, in a familiar context, ensuring minimum damage to the environment.

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

Competency Field

Networks

Elements and Performance Criteria

ELEMENTS	PERFORMANCE CRITERIA
Elements describe the essential outcomes	Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the range of conditions section.
1. Plan and prepare for testing and commissioning	1.1 Check plans to locate features and the section to be tested. 1.2 Identify and interpret the system operation requirements. 1.3 Check and schedule vacuum testing and commissioning tasks. 1.4 Identify and assess potential hazards and take required preventative measures. 1.5 Select and use tools and equipment. 1.6 Check testing equipment for accuracy and identify and correct malfunctions.
2. Maintain water system hygiene	2.1 Arrange disinfection. 2.2 Clean the relevant section of the distribution system. 2.3 Dispose of flushing.
3. Test the pipeline system	3.1 Test equipment by determining the correct test pressure for the pipeline and by fitting gauges of the correct range. 3.2 Locate and report failed pipes, joints and fittings and reschedule testing. 3.3 Vacuum test concrete access chambers.
4. Commission the distribution system	4.1 Ensure the distribution system is operational. 4.2 Check, maintain and store equipment, tools and materials. 4.3 Restore the work site.
5. Record and report results	5.1 Maintain workplace and calibration records and certificates. 5.2 Collect and store all testing and compliance results.

Foundation Skills

The foundation skills demands of this unit have been mapped for alignment with the Australian Core Skills Framework (ACSF). The following tables outline the performance levels indicated for successful attainment of the unit.

ACSF levels indicative of performance:

1	2	3	4	5	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
Learning NA					Reading					Writing					Oral communication NA					Numeracy				

Performance variables:

1	2	3	4	5	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
Support					Context					Text complexity					Task complexity				

Further information on ACSF and the foundation skills underpinning this unit can be found in the Foundation Skills Guide on the GSA website.

Range of Conditions

Cleaning techniques include:	- flush - slug - swab
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Unit Mapping Information

This unit supersedes and is equivalent to NWP309B Test and commission water distribution systems.

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 NWPNET044 Test and commission water distribution systems

Modification History

Release	Comments
1	These Assessment Requirements were released in NWP Water Training Package release 1.0 and meet the Standards for Training Packages. • Assessment Requirements created drawing upon specified assessment information from superseded unit

Performance Evidence

Evidence required to demonstrate competence must satisfy all of the requirements of the elements and performance criteria. The candidate must be assessed using one or more cleaning techniques listed in the Range of Conditions. If not otherwise specified the candidate must demonstrate evidence of performance of the following on at least one occasion.

- interpreting and applying a range of technical documents
- conducting test procedures
- monitoring work processes and ensuring safe work practices
- testing pipes
- identifying system faults
- testing and commissioning water distribution systems
- planning the testing of water distribution systems
- identifying and analysing system requirements
- identifying and addressing hazards
- using suitable protective equipment
- maintaining the quality of water in the system
- commissioning the distribution system
- restoring worksite and equipment
- completing required reports and records

Knowledge Evidence

Evidence required to demonstrate competence must satisfy all of the requirements of the elements and performance criteria. If not otherwise specified the depth of knowledge demonstrated must be appropriate to the job context of the candidate.

- general WHS on work sites

- the risk factors and potential hazards of test procedures
- water hygiene and system disinfection requirements
- equipment operation
- environmental aspects of test procedures
- characteristics of pipes, materials and fittings
- an overview of the water distribution system and water industry operations
- relevant definitions, terminology, symbols and language
- testing methods used for water distribution systems

Assessment Conditions

Competency should be assessed in an actual workplace or in a simulated environment, with access to equipment and infrastructure appropriate to the outcome. Competency should be demonstrated over time to ensure the candidate is assessed across a variety of situations.

Assessors must satisfy the NVR/AQTF mandatory competency requirements for assessors.

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