



Australian Government

NWPNET041 Monitor and operate water distribution systems

Release: 1

NWPNET041 Monitor and operate 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 NWP310B Monitor and operate water distribution systems. • Unit code updated • Content and formatting updated to comply with the new standards • All PC transitioned from passive to active voice

Application

This unit of competency describes the skills required to monitor and coordinate the operation of bulkwater or water distribution systems and to measure and report on the operation of the system. The ability to interpret technical documentation, identify and investigate operational problems and to collect and analyse technical information is essential to performance.

This unit applies to those working as field staff and operators with a specific responsibility for inspecting and measuring the performance of bulkwater or water distribution systems and for ensuring that flow, pressure and volume parameters are regulated according to organisational specifications and system demands.

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. Monitor system performance and usage	1.1 Select and check equipment required for monitoring system performance. 1.2 Schedule and conduct routine inspections and report any identified faults. 1.3 Collect, analyse and report system performance data. 1.4 Monitor sample collection and records.
2. Regulate flow, pressure and volume	2.1 Inspect and adjust flow regulating systems. 2.2 Monitor and adjust pressures and volumes. 2.3 Monitor flows and diversions required for repair or emergency activities.
3. Operate and control distribution processes	3.1 Control distribution processes to maintain the required parameters of operation. 3.2 Conduct flow measurements. 3.3 Identify, address and report process faults. 3.4 Optimise process performance.
4. Compile process reports	4.1 Compile reports from system data. 4.2 Record the condition of equipment and report faults or anticipated problems.

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					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.

Unit Mapping Information

This unit supersedes and is equivalent to NWP310B Monitor and operate 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 NWPNET041 Monitor and operate 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. If not otherwise specified the candidate must demonstrate evidence of performance of the following on at least one occasion.

- responding to and correcting operational problems
- interpreting plans, charts, service search diagrams, instructions, policies and specifications
- controlling system operations
- identifying control system faults
- monitoring and coordinating the operation of bulkwater or water distribution systems
- interpreting a range of technical documentation
- identifying and investigating operational problems
- collecting and analysing technical information
- conducting routine inspections
- analysing and reporting system performance data
- meeting organisation standards for optimising water distribution performance

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.

- system hydraulics
- coordination and control of processes
- system layout and processes
- environmental aspects of bulkwater and water distribution systems
- chemical use

- policies, standard operating procedures and legislation
- relevant utilities and service bodies
- communication systems
- risk management principles
- risk factors and potential hazards involved with water pressures and flows
- equipment operation, capacity and limitations
- effects of weather and conditions on operation of bulkwater and water distribution systems
- types of pipes and fittings
- pumping and valving systems
- control systems
- forces including gravitational, valve operation, hydraulic and pumps

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.

Links

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