



Australian Government

NWPNET051 Monitor and operate water distribution systems

Release: 1

NWPNET051 Monitor and operate water distribution systems

Modification History

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

Application

It includes coordinating the operation of bulkwater or water distribution systems and measuring and reporting on the operation of the system. It also includes interpreting technical documentation, identifying and investigating operational problems and collecting and analysing technical information.

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

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.

PERFORMANCE CRITERIA

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

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

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 NWPNET041 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 NWPNET051 Monitor and operate water distribution systems

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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:

- analysing and reporting system performance data
- collecting and analysing technical information
- completing relevant work documentation
- conducting routine inspections
- controlling system operations
- identifying and investigating operational problems
- identifying and reporting control system faults
- interpreting a range of technical documentation
- meeting organisational standards for optimising water distribution performance
- monitoring and coordinating the operation of bulkwater and water distribution systems
- responding to and correcting operational problems

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:

- chemical use requirements
- control systems
- coordination and control of processes
- effects of weather and conditions on operation of bulkwater and water distribution systems
- environmental aspects of bulkwater and water distribution systems
- equipment operation
- forces including gravitational, valve operation, hydraulic and pumps
- relevant legislation, regulations and workplace procedures
- relevant utilities and service bodies
- risk management principles
- types of pipes and fittings

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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