



Australian Government

NWPNET058 Optimise network systems

Release: 1

NWPNET058 Optimise network systems

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 optimise network systems.

It includes coordinating, monitoring and optimising system performance and maintenance planning in drinking water distribution systems.

This unit applies to those working as staff members with a specific responsibility for ensuring drinking water systems comply with organisational and statutory requirements. Those undertaking this unit would work autonomously, usually with supervisory responsibilities, while performing complex tasks in a range of contexts.

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 Evaluate drinking water distribution system performance

PERFORMANCE CRITERIA

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

1.1 Review existing distribution system performance data against relevant organisational and legislative requirements

- | | | |
|----------|--|--|
| | 1.2 | Identify the impact of the distribution system on water quality |
| | 1.3 | Identify and coordinate any sampling and testing required for valid evaluation of current system performance |
| 2 | Investigate water distribution system issues | |
| | 2.1 | Review existing system fault reports and relevant water quality information |
| | 2.2 | Identify and record links between operational problems and maintenance activities |
| | 2.3 | Investigate the operational status of system components and equipment with reference to manufacturer and supplier specifications |
| | 2.4 | Carry out distribution system configuration investigations to identify potential deficiencies |
| 3 | Plan optimisation of drinking water distribution system | |
| | 3.1 | Identify potential hazards to the distribution system and propose appropriate preventative measures |
| | 3.2 | Develop and validate a system optimisation plan 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 supersedes and is equivalent to NWPNET005 Optimise network systems.

Links

Companion Volume implementation guides are found in VETNet -

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

Assessment Requirements for NWPNET058 Optimise network systems

Modification History

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

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 problems and recommending appropriate solutions
- assessing distribution system performance and impacts on water quality
- conducting hazard assessment and proposing prevention strategies
- identifying opportunities for improved distribution system management
- identifying risks and hazards
- investigating system faults and deficiencies and assessing the status of system components
- optimising system performance and maintenance planning
- participating in the provision of appropriate information to inform workplace processes
- producing and monitoring a drinking water distribution system optimisation plan
- producing optimisation reports

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 include knowledge of:

- equipment operation, capacity and limitations of control system
- incident management processes according to workplace procedures
- relevant legislation, industry standards, policies and procedures including:
 - customer expectations and requirements
- risk factors and potential hazards involved in water systems
- system hydraulics
- system layout, processes and operations
- workplace documentation including requirements for a system optimisation plan

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.

Links

Companion Volume implementation guides are found in VETNet -

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