



Australian Government

NWPTRT065 Assess and improve treatment for removal of microorganisms in drinking water and recycled water

Release: 1

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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 assess and improve treatment for removal of microorganisms in drinking water and recycled water.

It includes identifying microorganisms and assessing the appropriate drinking water or recycled water treatment processes for inactivation or removal.

This unit applies to those working as water treatment operators responsible for water quality in a range of technical and process applications in drinking water and recycled water treatment. 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

Treatment

Unit Sector

Not applicable.

Elements and Performance Criteria

ELEMENTS

PERFORMANCE CRITERIA

Elements describe the essential outcomes.

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

1 Assess performance of processes to remove or

1.1 Identify microorganisms in water source to assess

inactivate microorganisms	potential operational impacts
	1.2 Review existing process performance data according to regulatory or workplace requirements 1.3 Review existing operational processes with reference to manufacturer and plant design specifications 1.4 Identify the impact of raw water quality on treatment effectiveness for microorganism removal 1.5 Identify and respond to faults and other relevant plant asset performance information according to workplace procedures 1.6 Monitor the operational status of plant components and maintenance schedule 1.7 Investigate the cause of treated water quality issues relating to microorganisms 1.8 Assess the effectiveness of process control strategies for microorganism removal or inactivation
2 Improve process performance for removal of microorganisms	2.1 Identify treatment process conditions for optimising microorganism removal 2.2 Determine plant configuration and revised operational processes for process optimisation 2.3 Plan a trial to test the performance of the determined optimisation options 2.4 Identify hazards, assess risks and control measures according to workplace procedures
3 Report on system performance and improvement	3.1 Report on the current operational status of the water treatment process according to workplace procedures 3.2 Report on effective treatment processes and associated sampling and testing procedures to maintain water quality 3.3 Compile a report making recommendations on optimisation options

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 NWPTRT051 Assess and improve treatment for pathogen removal.

Links

Companion Volume implementation guides are found in VETNet -

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