



Australian Government

NWPTRT058 Assess and improve desalination processes

Release: 1

NWPTRT058 Assess and improve desalination processes

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 desalination processes.

It includes assessing, evaluating system performance, investigating and reporting on the optimisation of desalination processes for water treatment and water recycling.

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

Elements describe the essential outcomes.

1 Evaluate desalination processes

PERFORMANCE CRITERIA

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

1.1 Review existing process performance and maintenance data against relevant organisational and legislative requirements

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| | 1.2 | Identify the impact of feed water quality on desalination treatment processes |
| | 1.3 | Identify any additional sampling and testing required for valid evaluation of current process performance |
| 2 Investigate desalination process plant configuration | 2.1 | Review existing fault reports and other relevant plant asset information |
| | 2.2 | Investigate the operational status of plant components with reference to manufacturer and plant designer specifications |
| | 2.3 | Contribute to plant configuration investigations to identify potential operational improvements |
| | 2.4 | Identify hazards, assess risks and control measures according to workplace procedures |
| 3 Investigate options for desalination process optimisation | 3.1 | Review current desalination processes with reference to organisational procedures protocol to identify potential deficiencies |
| | 3.2 | Identify and investigate new or additional chemicals and related dosing options |
| 4 Develop and record a plan for process optimisation | 4.1 | Plan a trial to test the performance of the determined optimisation options |
| | 4.2 | 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 NWPTRT045 Assess and improve desalination processes.

Links

Companion Volume implementation guides are found in VETNet -

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