



**Australian Government**

# **NWPTRT063 Assess and improve membrane filters**

**Release: 1**

# NWPTRT063 Assess and improve membrane filters

## 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 membrane filters.

It includes evaluating membrane filter process performance, investigating membrane filter plant configuration and options for process optimisation. It also includes developing and recording a plan for process optimisation.

This unit applies to those working as technical staff with a responsibility for optimising chemical addition processes in water treatment plants and processes. 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 membrane filter 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

- |                                                                |            |                                                                                                                       |
|----------------------------------------------------------------|------------|-----------------------------------------------------------------------------------------------------------------------|
|                                                                | <b>1.2</b> | Identify the impact of changing raw or influent water quality on membrane processes                                   |
|                                                                | <b>1.3</b> | Identify any additional sampling and testing required for valid evaluation of current process performance             |
| <b>2 Investigate membrane filter plant configuration</b>       | <b>2.1</b> | Review existing fault reports and other plant asset information                                                       |
|                                                                | <b>2.2</b> | Investigate the operational status of plant components with reference to manufacturer and plant design specifications |
|                                                                | <b>2.3</b> | Contribute to plant configuration investigations to identify potential operational improvements                       |
|                                                                | <b>2.4</b> | Identify hazards, assess risks and control measures according to workplace procedures                                 |
| <b>3 Investigate options for membrane process optimisation</b> | <b>3.1</b> | Review current membrane processes with reference to organisational protocol to identify potential deficiencies        |
|                                                                | <b>3.2</b> | Identify and investigate new or additional chemicals and related dosing options                                       |
| <b>4 Develop and record a plan for process optimisation</b>    | <b>4.1</b> | Plan a trial to test the performance of the determined optimisation options                                           |
|                                                                | <b>4.2</b> | Compile report with 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 NWP - National Water Training Package Companion Volume Implementation Guide.

## Unit Mapping Information

This is a new unit. No equivalent unit.

## Links

Companion Volume implementation guides are found in VETNet -

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