



Australian Government

Assessment Requirements for NWPTRT021 Operate and control desalination processes

Release: 2

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Modification History

Release 2. Minor upgrade - added 1 item to Knowledge Evidence.

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:

- collecting data and completing required documentation
- conducting routine plant inspections
- identifying and reporting faults
- interpreting data and making process adjustments
- making process adjustments including:
 - chemical cleaning
 - flow control
 - pre-treatment optimisation
 - waste disposal
- monitoring test results and processes
- operating control equipment
- performing one of the following desalination processes:
 - electrodialysis reversal (EDR)
 - nanofiltration (NF)
 - reverse osmosis
 - thermal desalination
- performing process calculations
- taking samples and performing tests
- using safety and personal protective equipment

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 dosing requirements for pre-treatment or cleaning
- desalination equipment operation, capacity and limitations

- impact of electrical flow or current and how reversal effects the process
- interpretation of safety data sheets
- lockout procedures for mechanical and electrical installations
- mechanical and electrical control systems
- pre-treatment processes
- principles of desalination processes
- relevant legislation, regulations and workplace procedures
- risk factors and potential hazards
- system layout

Assessment Conditions

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>