



Australian Government

NWPTRT005 Monitor and operate water treatment processes

Release: 1

NWPTRT005 Monitor and operate water treatment 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 monitor and operate water treatment processes.

It includes reporting on water treatment plant system performance and processing quality control. It also includes operating water treatment processes, and complying with relevant legislation, regulations and guidelines.

This unit applies to operational staff in water treatment plants with responsibility for the practical and safe operation of plant, equipment and processes. Those undertaking this unit would work under appropriate supervision, while performing routine tasks, within a familiar context.

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 Prepare for work

PERFORMANCE CRITERIA

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

1.1 Determine work requirements from job specifications and plans

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|--|------------|--|
| | 1.2 | Select and check equipment required to meet safety requirements of task and worksite |
| | 1.3 | Select, fit and use required safety equipment, including personal protective equipment (PPE) |
| 2 Monitor and operate treatment processes | 2.1 | Inspect plant according to workplace procedures |
| | 2.2 | Collect process samples and conduct standard tests according to workplace procedures |
| | 2.3 | Operate treatment processes according to workplace procedures |
| | 2.4 | Perform adjustments to enhance system performance |
| 3 Complete documentation | 3.1 | Collect, record and complete process data according to workplace procedures |
| | 3.2 | Identify and report observations outside defined parameters to relevant personnel for further action |

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 NWPTRT001 Operate and control water treatment processes.

Links

Companion Volume implementation guides are found in VETNet -

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

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Assessment Requirements for NWPTRT005 Monitor and operate water treatment processes

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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:

- applying workplace procedures
- collecting and labelling samples
- collecting and recording data
- completing documentation
- conducting routine plant inspections
- performing disinfection processes
- performing water treatment separation processes
- preparing and applying chemical dosing.

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:

- demands and uses of water, both domestic and industrial
- interpreting safety data sheets
- physical, chemical and microbiological characteristics of water
- post-treatment processes
- pre-treatment processes
- reasons for water treatment
- relevant legislation, regulations and workplace procedures
- relevant technologies for operating and controlling water treatment processes
- relevant water treatment guidelines and standards
- risk factors and potential hazards associated with the operation of water treatment processes
- risk management principles
- sources of water
- types of chemicals and water chemistry
- types of treatment plants and processes
- water and chemical principles
- water cycle.

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.

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