



Australian Government

NWPTRT061 Operate and control wastewater processes

Release: 1

NWPTRT061 Operate and control wastewater processes

Modification History

Release	Comments
1	This unit was released in NWP Water Training Package release 1.0 and meets the Standards for Training Packages. • New unit • Created drawing upon information from deleted units NWP262A, NWP263A and NWP346B

Application

This unit of competency describes the skills required to operate and control a wastewater treatment plant and report on system performance and process quality control. The ability to operate wastewater treatment processes to ensure that wastewater disposal or re use meets state or territory licensing requirements is essential to performance.

This unit applies to those working as operational staff in wastewater treatment plants with responsibility for the practical and safe operation of plant, equipment and processes.

The skills and knowledge described in this unit must be applied within the legislative, regulatory and policy environment in which they are carried out. Organisational policies and procedures must be consulted and adhered to, particularly those relating to WHS.

Those undertaking this unit would work under supervision, performing routine tasks within a familiar context.

No licensing, legislative or certification requirements apply to unit at the time of publication.

Competency Field

Treatment

Elements and Performance Criteria

ELEMENTS	PERFORMANCE CRITERIA
Elements describe the essential outcomes	Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the range of conditions section.
1. Plan and	1.1 Determine work requirements from work specifications and

prepare for work	plans. 1.2 Select and check equipment required to meet safety requirements of task and site. 1.3 Select, fit and use safety equipment including personal protective equipment.
2. Operate and control processes	2.1 Carry out routine plant inspections according to the type of plant. 2.2 Identify and report process faults and the operational condition of the plant. 2.3 Collect samples and conduct standard tests. 2.4 Carry out basic adjustments to improve process performance.
3. Complete documentation	3.1 Collect, record and complete process data. 3.2 Identify data that falls outside normal parameters and report for further action.

Foundation Skills

The foundation skills demands of this unit have been mapped for alignment with the Australian Core Skills Framework (ACSF). The following tables outline the performance levels indicated for successful attainment of the unit.

ACSF levels indicative of performance:

1	2	3	4	5	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
Learning NA					Reading					Writing					Oral communication					Numeracy				

Performance variables:

1	2	3	4	5	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
Support					Context					Text complexity					Task complexity				

Further information on ACSF and the foundation skills underpinning this unit can be found in the Foundation Skills Guide on the GSA website.

Range of Conditions

Current processes include:	- primary processes: - screening - grit removal
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	• primary sedimentation • odour control • secondary processes: • activated sludge • nutrient removal • trickling filters • lagoons • tertiary processes: • lagoons • clarification • membrane filters • granular filters • disinfection • solids management: • aerobic/anaerobic • dewatering • gas management • thickening
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Unit Mapping Information

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>

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Assessment Requirements for NWPTRT061 Operate and control wastewater processes

Modification History

Release	Comments
1	These Assessment Requirements were released in NWP Water Training Package release 1.0 and meet the Standards for Training Packages.

Performance Evidence

Evidence required to demonstrate competence must satisfy all of the requirements of the elements and performance criteria. The candidate must be assessed in at least one of the processes listed in the Range of Conditions. If not otherwise specified the candidate must demonstrate evidence of performance of the following on at least one occasion.

- conducting routine plant inspections
- interpreting safety data sheets (SDS)
- applying basic mathematical formulae
- completing logs
- determining chemical dosing requirements

Knowledge Evidence

Evidence required to demonstrate competence must satisfy all of the requirements of the elements and performance criteria. If not otherwise specified the depth of knowledge demonstrated must be appropriate to the job context of the candidate.

- sources of wastewater
- water cycle
- basic hydraulics and organic loading in wastewater plants
- basic chemistry and microbiology
- types of components
- relevant technologies
- weather influence on wastewater plants
- odour control
- physical, chemical and microbiological characteristics and operating principles relating to wastewater treatment
- reasons for wastewater treatment
- types of wastewater treatment plant processes
- major chemicals and equipment used

- risk factors and potential hazards relating to wastewater treatment
- chemical and biological principles that form the basis of wastewater treatment
- chemical dosing processes
- relevant guidelines and standards
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Assessment Conditions

Competency should be assessed in an actual workplace or in a simulated environment, with access to equipment and infrastructure appropriate to the outcome. Competency should be demonstrated over time to ensure the candidate is assessed across a variety of situations.

Assessors must satisfy the NVR/AQTF mandatory competency requirements for assessors.

Links

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