



Australian Government

NWPTRT085 Assess and improve wastewater processes to control microbial impacts

Release: 1

NWPTRT085 Assess and improve wastewater processes to control microbial impacts

Modification History

Release	Comments
1	This unit was released in NWP Water Training Package release 1.0 and meets the Standards for Training Packages. This unit supersedes and is equivalent to NWP414A Select strategies to control microbial impact on wastewater treatment processes. • Unit code updated • Content and formatting updated to comply with the new standards • All PC transitioned from passive to active voice • Unit title changed to better reflect unit outcomes • PC 2.3 revised

Application

This unit describes the skills required to identify wastewater microorganisms and select appropriate measures to optimise the growth of beneficial microorganisms.

This unit applies to those working as wastewater treatment operational specialists.

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.

Those undertaking this unit would work autonomously, performing sophisticated tasks in 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. Investigate wastewater microorganisms	1.1 Identify a range of typical wastewater microorganisms. 1.2 Identify the general characteristics of different types of microorganisms. 1.3 Identify wastewater characteristics that impact on microorganism growth. 1.4 Identify the problems caused by microorganisms in specific wastewater treatment processes.
2. Select strategies to optimise the growth of beneficial microorganisms	2.1 Investigate the cause of effluent quality issues. 2.2 Investigate the operational status of the wastewater treatment process. 2.3 Assess the effectiveness of various process control strategies to optimise the growth of beneficial microorganisms. 2.4 Select the most appropriate method.
3. Identify and report on appropriate process controls	3.1 Identify treatment process conditions for optimising the growth of beneficial microorganisms. 3.2 Report on appropriate treatment processes and associated sampling and testing requirements.

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					Reading					Writing					Oral communication NA					Numeracy NA				

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.

Unit Mapping Information

This unit supersedes and is equivalent to NWP414A Select strategies to control microbial impact on wastewater 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 NWPTRT085 Assess and improve wastewater processes to control microbial impacts

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. • Assessment Requirements created drawing upon specified assessment information from superseded unit

Performance Evidence

Evidence required to demonstrate competence must satisfy all of the requirements of the elements and performance criteria. If not otherwise specified the candidate must demonstrate evidence of performance of the following on at least one occasion.

- interpreting a range of complex and technical documents, including:
 - regulatory, legislative, licensing and organisational requirements
 - codes and standards
 - specifications
 - organisational policies
- identifying wastewater microorganisms
- identifying a range of wastewater microorganisms, and their general characteristics and types of problems caused
- preparing reports outlining the optimum treatment for various microorganisms including measures to ensure validity

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.

- types, lifecycle, characteristics of wastewater microorganisms
- operational problems caused by wastewater microorganisms
- effluent quality problems caused by wastewater microorganisms
- relevant legislation, standards and workplace policies and procedures
- principles of wastewater treatment processes
- process control strategies

- properties and mode of action of chemical additives

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.

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