Australian Government

NWPTRT093 Assess and improve anaerobic digestion processes

Release: 1

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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 NWP413A Investigate and plan the optimisation of anaerobic 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 • One new PC added to Element 2

Application

This unit describes the skills required to evaluate system performance and investigate and report on optimisation of anaerobic bioreactor processes.

This unit applies to those working as technical staff with a specific responsibility for optimising mixed, fixed and suspended media anaerobic bioreactor processes in wastewater treatment plants.

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 related to measuring and testing, investigation and manufacturers' specifications.

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. Evaluate anaerobic treatment process performance	1.1 Review existing process performance data. 1.2 Review existing operational processes with reference to manufacturer and plant designer specifications. 1.3 Identify the impact of incoming feed quality on anaerobic treatment processes. 1.4 Identify and coordinate any additional sampling and testing required for valid evaluation of current process performance.
2. Investigate anaerobic treatment plant configuration	2.1 Review existing fault reports and other relevant plant asset information. 2.2 Investigate the operational status of plant components with reference to manufacturers' or plant designers' specifications. 2.3 Carry out investigations to identify potential deficiencies.
3. Investigate the operational options for process optimisation	3.1 Review relevant fault and incident reports and remedial actions taken. 3.2 Investigate potential changes to operational processes to identify possible optimisation strategies.
4. Develop and record a plan for process optimisation	4.1 Determine plant configuration and revised operational processes for process optimisation. 4.2 Plan a trial to test the performance of the determined optimisation options. 4.3 Compile a report making recommendations on optimisation options.

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.

Unit Mapping Information

This unit supersedes and is equivalent to NWP413A Investigate and plan the optimisation of anaerobic 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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