



Australian Government

NWPTRT050 Assess and improve anaerobic digestion processes

Release: 1

NWPTRT050 Assess and improve anaerobic digestion 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 assess and improve anaerobic digestion processes.

It includes evaluating system performance and investigating and reporting 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. Those undertaking this unit would work autonomously, usually with supervisory responsibilities, while performing complex tasks in a range of contexts.

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 Evaluate anaerobic treatment process performance

PERFORMANCE CRITERIA

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

1.1 Review existing process performance data against organisational operating protocol

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| | 1.2 | Identify the impact of incoming feed quality on anaerobic treatment processes |
| | 1.3 | Identify any additional sampling and testing required for valid evaluation of current process performance |
| 2 Investigate anaerobic treatment plant configuration | 2.1 | Assess existing fault reports and other relevant plant asset information |
| | 2.2 | Investigate the operational status of plant components with reference to manufacturer or plant design specifications |
| | 2.3 | Contribute to plant configuration investigations to identify potential deficiencies |
| | 2.4 | Identify hazards, assess risks and control measures according to workplace procedures |
| 3 Investigate the operational options for process optimisation | 3.1 | Review relevant fault and incident reports and report on effectiveness of remedial action |
| | 3.2 | Investigate potential changes to operational processes to identify possible optimisation strategies |
| 4 Develop and record a plan for process optimisation | 4.1 | Plan a trial to test the performance of the determined optimisation options |
| | 4.2 | Compile a report making recommendations on optimisation options |

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 NWPTRT093 Assess and improve anaerobic digestion processes.

Links

Companion Volume implementation guides are found in VETNet -

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