



Australian Government

NWPTRT047 Monitor, operate and control lagoon processes

Release: 1

NWPTRT047 Monitor, operate and control lagoon 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, operate and control lagoon processes.

It includes measuring and reporting on system performance and process quality control, monitoring and operating wastewater lagoon processes and reporting on system performance.

This unit applies to operational staff with a specific responsibility for wastewater lagoons in treatment plants. Those undertaking this unit would work under appropriate supervision, 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

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 lagoon processes	2.1	Inspect plant according to workplace procedures
	2.2	Collect process samples and conduct standard tests according to workplace procedures
	2.3	Prepare samples for offsite testing
3 Operate and control lagoon processes	3.1	Operate lagoon processes according to workplace procedures
	3.2	Perform adjustments or maintenance to enhance process performance
	3.3	Collect, record and communicate process data
	3.4	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 NWPTRT101 Operate and control lagoon 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 NWPTRT047 Monitor, operate and control lagoon 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:

- collecting and labelling samples
- collecting and recording data
- completing required documentation
- identifying and reporting process faults
- making process adjustments
- monitoring, operating and reporting on lagoon processes
- taking samples and performing onsite tests including:
 - dissolved oxygen
 - pH
 - temperature

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:

- communication processes
- features and components of wastewater lagoon systems
- flow measurement
- operational problems
- plant layout
- principles of lagoon wastewater treatment
- recirculation principles
- relevant legislation, regulations and workplace procedures
- risk factors and potential hazards relating to wastewater lagoon systems
- types of lagoon processes including:
 - aerated
 - anaerobic
 - facultative

- maturation
- sludge

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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