



Australian Government

NWPTRT010 Operate and control sedimentation and clarification processes

Release: 1

NWPTRT010 Operate and control sedimentation and clarification 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 operate and control sedimentation and clarification processes.

It includes monitoring sedimentation and clarification plant measuring and reporting on system performance and process quality control. It also includes identifying faults, determining and applying adjustments, conducting chemical dosing procedures and producing reports.

This unit applies to operational staff with a specific responsibility for sediment and clarification processes in water treatment plants. Those undertaking this unit would work under appropriate supervision, while performing routine tasks, within a range of familiar 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 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 safety equipment including personal protective equipment (PPE)
2	Operate and control sedimentation and clarification processes	
	2.1	Conduct routine plant inspections according to workplace procedures
	2.2	Identify and report process faults to relevant personnel
	2.3	Collect process samples and conduct standard tests according to workplace procedures
	2.4	Interpret data and make process adjustments to maintain operational parameters
3	Complete documentation	
	3.1	Collect, interpret and record process data according to workplace procedures and process requirements
	3.2	Identify data outside of normal operational parameters and report 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 NWPTRT031 Operate and control sedimentation and clarification processes and NWPTRT073 Operate and control wastewater sedimentation 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 NWPTRT010 Operate and control sedimentation and clarification 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:

- completing required documentation
- conducting routine plant inspections
- identifying control system faults
- making system adjustments
- monitoring sludge blanket levels
- performing process calculations
- preparing and applying chemical dosing
- taking samples and performing tests

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:

- chemical dosing processes
- control systems
- effects of weather and conditions on operation of site or plant
- enhanced particle settling theory
- equipment operation, capacity and limitations
- relevant legislation, regulations and workplace procedures
- risk factors and potential hazards relating to water or wastewater treatment
- sedimentation and clarification processes including chemical and biological principles
- sedimentation and clarification theory and operation
- settling aids
- system layout

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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