



Australian Government

NWPTRT039 Operate and control solids handling processes

Release: 1

NWPTRT039 Operate and control solids handling 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 solids handling processes.

It includes monitoring water, wastewater dewatering, sludge thickening plant and measuring and reporting on system performance and process quality control. It also includes identifying faults, determining and applying technical adjustments and conducting chemical dosing procedures.

This unit applies to operational staff with a specific responsibility for water or wastewater dewatering and sludge thickening processes in a treatment plant. Those undertaking this unit would work under appropriate supervision, while 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

PERFORMANCE CRITERIA

Elements describe the essential outcomes.

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

1 Monitor dewatering process performance	1.1	Monitor test results and processes to maintain the parameters of operation
	1.2	Identify and report process faults to relevant personnel
2 Control chemical use	2.1	Use, handle and store chemicals according to workplace procedures
	2.2	Prepare and apply chemical dosing according to workplace procedures
	2.3	Maintain chemical supply and usage records
	2.4	Select, fit and use required safety equipment, including personal protective equipment (PPE)
3 Operate and control dewatering processes	3.1	Conduct routine inspections according to workplace procedures
	3.2	Conduct and analyse process tests and determine performance against plant operational requirements
	3.3	Make integrated process adjustments to optimise system performance
4 Complete documentation	4.1	Collect, interpret and record process data according to workplace procedures and process requirements
	4.2	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 NWPTRT091 Operate and control solids handling processes.

Links

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=26336bc0-04e5-49d9-8c31-46c49b6a0037>

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=26336bc0-04e5-49d9-8c31-46c49b6a0037>

Companion Volume implementation guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=26336bc0-04e5-49d9-8c31-46c49b6a0037>

Assessment Requirements for NWPTRT039 Operate and control solids handling processes

Modification History

Release 1. This is the first release of this unit of competency in the NWP National Water Training Package.

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 data and completing required documentation
- conducting routine plant inspections
- identifying and reporting faults
- making process adjustments according to process performance indicators
- monitoring test results and processes
- preparing and applying chemical dosing
- taking samples and performing tests and calculations on at least one of the following:
 - centrate or filtrate clarity
 - solids handling process efficiency
 - jar testing
 - sludge density
 - solids analysis

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
- chemicals used for sludge conditioning including polymers
- equipment operation, hazards, capacity and limitations
- features and components of thickening and dewatering systems
- hazardous materials handling
- plant layout
- principles of solids handling processes
- relevant legislation, regulations and workplace procedures
- safety data sheets
- solids classifications and reuse options

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.

Links

Companion Volume implementation guides are found in VETNet -

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

Companion Volume implementation guides are found in VETNet -

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

Companion Volume implementation guides are found in VETNet -

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