



Australian Government

NWPTRT071 Operate and control pre-treatment processes

Release: 1

NWPTRT071 Operate and control pre-treatment processes

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 NWP264B Monitor, operate and report wastewater pre-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 • Element 4 reworded • PC 3.2 revised • PC 4.1 removed • PC 4.2 reworded

Application

This unit describes the skills required to monitor, operate and report on wastewater pre-treatment processes, including separation processes such as screens and grit removal, used in industrial or domestic wastewater treatment plants prior to biological treatments.

This unit applies to those working as operational staff with specific responsibility for pre-treatment processes.

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 relating to environment, safety, and manufacturers' guidelines.

Those undertaking this unit would work under supervision while performing routine tasks in a range of familiar contexts.

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. Plan and prepare for work	1.1 Determine work requirements as outlined in standard operating procedures. 1.2 Identify and report potential risks to self, other employees, public and environment. 1.3 Select and check work site equipment, tools and safety materials as appropriate to meet task and safety specifications. 1.4 Select, fit and use personal protective equipment.
2. Monitor pre-treatment processes	2.1 Carry out routine plant inspections. 2.2 Monitor processes to maintain parameters of operation. 2.3 Collect process samples and conduct standard tests. 2.4 Collect, record and report process data. 2.5 Identify and report process faults and operational condition of plant.
3. Operate pre-treatment processes	3.1 Operate pre-treatment processes. 3.2 Carry out basic adjustments to enhance system performance. 3.3 Determine chemical dosing requirements
4. Complete documentation	4.1 Collect and record process data 4.2 Report observations outside defined parameters for further action.

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					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 NWP264B Monitor, operate and report wastewater pre-treatment 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>

Companion Volume implementation guides are found in VETNet -

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

Assessment Requirements for NWPTRT071 Operate and control pre-treatment processes

Modification History

Release	Comments
1	These Assessment Requirements were released in NWP Water Training Package release 1.0 and meet the Standards for Training Packages. • Assessment Requirements created drawing upon specified assessment information from superseded unit

Performance Evidence

Evidence required to demonstrate competence must satisfy all of the requirements of the elements and performance criteria. If not otherwise specified the candidate must demonstrate evidence of performance of the following on at least one occasion.

- performing calculations including ratios
- reading and applying procedures and standards
- giving and receiving instructions
- identifying control system faults and operational problems
- using verbal and written communication in the workplace
- monitoring, operating and reporting on wastewater pre-treatment processes, including at least one of:
 - screening
 - gravity and aerated grit chambers
 - gross pollution traps
 - removal and disposal of screenings
 - shredding
 - odour removal
 - oily water separators
 - riffle plate separators
- planning and preparing for work
- collecting and labelling samples and performing tests including, at least one of:
 - settling tests
 - pH
 - dissolved oxygen
 - suspended solids

- chemical oxygen demand
- inspecting plant and monitoring processes
- collecting and recording data
- operating and adjusting processes, including at least one of:
 - pH correction
 - dissolved oxygen levels
 - flow control
 - screen rotation frequency
 - solids removal
 - chemical additions
 - plant performance data
 - chemical usage
- recording all required information

Knowledge Evidence

Evidence required to demonstrate competence must satisfy all of the requirements of the elements and performance criteria. If not otherwise specified the depth of knowledge demonstrated must be appropriate to the job context of the candidate.

- principles of and need for effective pre-treatment
- system layout
- policies, procedures and legislation applied to wastewater pre-treatment processes
- relevant utilities and service bodies
- communication systems
- work-related calculations
- risk factors and potential hazards relating to wastewater treatment
- equipment operation, capacity and limitations
- pumping and valving systems
- control systems
- impacts of hydraulic loads on processes

Assessment Conditions

Competency should be assessed in an actual workplace or in a simulated environment, with access to equipment and infrastructure appropriate to the outcome. Competency should be demonstrated over time to ensure the candidate is assessed across a variety of situations.

Some components of this unit require assessment in a workplace environment therefore the unit is not suitable for fully external or electronic based assessment.

Assessors must satisfy the NVR/AQTF mandatory competency requirements for assessors.

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>

Companion Volume implementation guides are found in VETNet -

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