



Australian Government

NWPGEN014 Sample and test trade wastewater

Release: 1

NWPGEN014 Sample and test trade wastewater

Modification History

Release	Comments
1	This unit was released in NWP Water Training Package release 1.0 and meets the Standards for Training Packages.

Application

This unit describes the skills required to collect and prepare trade wastewater samples, perform basic field based tests and conduct and record analysis.

This unit applies to those working in the water industry but might be relevant to others.

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.

Those undertaking this unit would work under indirect supervision, while performing complex tasks in familiar contexts.

No licensing, legislative or certification requirements apply to unit at the time of publication.

Competency Field

General

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. Prepare for trade wastewater sampling and testing	1.1 Identify the need to sample based on trade waste customer risk, sewer catchment and infrastructure issues. 1.2 Schedule sampling and testing in accordance with a monitoring program. 1.3 Identify wastewater quality parameters to be tested for. 1.4 Identify appropriate sampling location and type of sample to be taken in accordance with the monitoring program. 1.5 Communicate with an external laboratory regarding sampling,

	preservation, parameters to be analysed and transportation requirements. 1.6 Select and apply sample preservation methods. 1.7 Select, check, calibrate and prepare equipment and resources. 1.8 Select, fit and use personal protective equipment.
2. Conduct trade wastewater sampling and testing	2.1 Adopt hygienic work practices. 2.2 Carry out job safety analysis or risk assessment. 2.3 Determine sampling method, either manual or automatic and time based or flow based. 2.4 Sample and determine the trade wastewater related to the typical operation of the business. 2.5 Collect samples ensuring that types, locations and times comply with requirements. 2.6 Maintain integrity of samples during sampling and field testing. 2.7 Conduct basic field trade wastewater tests. 2.8 Assess and report abnormal characteristics and undertake corrective action. 2.9 Limit hazards and contamination to self, work area and environment.
3. Finalise work	3.1 Apply chain of custody procedures. 3.2 Organise transportation of samples to the laboratory. 3.3 Report observations or measurements requiring further action. 3.4 Clean testing equipment and sampling site. 3.5 Record analysis results from field testing and laboratory testing. 3.6 Interpret test results, assess compliance and reschedule sampling to confirm findings.

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.

Range of Conditions

Field testing includes:	- pH - temperature - conductivity - metals - colour - visual assessment - odour - sulphides
Sampling processes include:	- automatic - flow proportional composites - time proportional composites - discreet manual

Unit Mapping Information

No equivalent unit.

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 NWPGEN014 Sample and test trade wastewater

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.

Performance Evidence

Evidence required to demonstrate competence must satisfy all of the requirements of the elements and performance criteria. The candidate must be assessed in both types of sampling processes and at least two types of field tests listed in the Range of Conditions. If not otherwise specified the candidate must demonstrate evidence of performance of the following on at least one occasion.

- conducting hazard and risks assessments
- planning working activities
- applying procedures and standards
- performing task-related calculations
- maintaining a safe work environment
- using automatic samplers and flow measurement equipment
- using recording equipment (i.e. pH or temperature recorder) and field test kits
- conducting trade waste tests on-site according to specifications
- disposing of waste and spent samples
- identifying which parameters can be analysed in-field and which need laboratory testing
- identifying necessary equipment and resources for sampling and testing (i.e. field test kits, preservation reagents)
- selecting appropriate sample jars and preparing documentation (labels, chain of custody and other required forms, i.e. inspection sheets)
- installing sampling, flow measuring (if applicable) and recording equipment in accordance with manufacturers' specifications and site specific conditions
- applying labels to samples and prepare appropriate documentation for external analyses

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.

- relevant policies and procedures including chain of custody

- relevant standard methods for testing of water
- range and purpose of basic water quality testing and sampling
- abnormal characteristics of water samples
- relevant calculations
- storage of reagents
- relevant legislative and organisational requirements
- trade waste sample preparation:
 - prevention of contamination
 - volume of sample
 - appropriate containers
 - preservation
 - location selection
 - equipment
 - documentation and transportation procedures for trade waste samples
 - disposal procedures for excess trade waste samples
 - sampling and testing requirements
- water quality parameters of significance to a range of trade waste discharges
- hazards associated with collection of trade waste samples

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.

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

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