



Australian Government

Department of Education, Employment and Workplace Relations

NWP322B Inspect and operate surface water systems

Revision Number: 2

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Modification History

NWP322B Release 2: Layout adjusted. No changes to content.

NWP322B Release 1: Primary release.

Unit Descriptor

This unit of competency describes the outcomes required to inspect and coordinate the operation of surface water systems and to measure and reporting on surface water usage and system performance. The ability to collect data and samples, monitor and adjust regulatory systems, coordinate system performance and produce technical reports are essential to performance.

Application of the Unit

This unit supports the attainment of skills and knowledge required for field staff and operators with a specific responsibility for inspecting and operating surface water systems and for ensuring that flows are regulated according to organisational specifications and system demands.

Licensing/Regulatory Information

Not applicable.

Pre-Requisites

Not applicable.

Employability Skills Information

This unit contains employability skills.

Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a unit of competency. Performance criteria describe the required performance needed to demonstrate achievement of the element. Where ***bold italicised*** text is used, further information is detailed in the range statement. Assessment of performance is to be consistent with the evidence guide.

Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
1 Inspect and report on surface water system performance and usage.	<p>1.1 Schedule and complete routine <i>inspections</i> of <i>surface supply areas</i>.</p> <p>1.2 Collect and record data on system capacity and flow according to <i>organisational and statutory requirements</i>.</p> <p>1.3 Collect and record water samples according to organisational requirements.</p> <p>1.4 Correctly select, fit and use required safety equipment, including personal protective equipment.</p>
2 Monitor inflows, outflows and releases.	<p>2.1 Inspect <i>flow regulating systems</i> and make adjustments to meet demand requirements.</p> <p>2.2 Monitor flows and coordinate diversions or extractions to control usage.</p> <p>2.3 Read meters and record volumes.</p>
3 Operate and coordinate system performance.	<p>3.1 Address and record process faults and operational conditions according to organisational requirements.</p> <p>3.2 Optimise process performance according to organisational requirements.</p>
4 Complete documentation.	<p>4.1 Record inspections results according to organisational requirements.</p> <p>4.2 Report data from inspection results according to organisational requirements.</p>

Required Skills and Knowledge

This describes the essential skills and knowledge and their level, required for this unit.

Required skills:

- identify operational problems
- coordinate inspections
- produce reports
- collect and analyse data
- use safety equipment and personal protective equipment
- calculate flow and capacity
- coordinate surveillance
- interpret plans
- communicate with employees and customers
- use communication systems
- give and receive instructions
- identify control system faults

Required knowledge:

- identify operational problems
- coordinate inspections
- produce reports
- collect and analyse data
- use safety equipment and personal protective equipment
- calculate flow and capacity
- coordinate surveillance
- interpret plans
- communicate with employees and customers
- use communication systems
- give and receive instructions
- identify control system faults

Evidence Guide

The evidence guide provides advice on assessment and must be read in conjunction with the Performance Criteria, Required Skills and Knowledge, the Range Statement and the Assessment Guidelines for the Training Package.

Critical aspects for assessment and evidence required to demonstrate competency in this unit

The candidate should demonstrate the ability to inspect and coordinate the operation of surface water systems including:

- inspecting surface supply areas
- collecting and recording data
- collecting samples
- inspecting and adjusting flow regulating systems
- monitoring flows
- coordinating diversions and extractions
- reading meters
- identifying and reporting faults
- integrating processes
- completing relevant documentation

Context of and specific resources for assessment

Access to the workplace and resources including:

- documentation that should normally be available in a water industry organisation
- relevant codes, standards, and government regulations

Where applicable, physical resources should include equipment modified for people with disabilities.

Access must be provided to appropriate learning and/or assessment support when required.

Assessment processes and techniques must be culturally appropriate, and appropriate to the language and literacy capacity of the candidate and the work being performed.

Validity and sufficiency of evidence requires that:

- competency will need to be demonstrated over a period of time reflecting the scope of the role and the practical requirements of the workplace
- where the assessment is part of a structured learning experience the evidence collected must relate to a number of performances assessed at different points in time and separated by further learning and practice
- a decision of competence only taken at the point when the assessor has complete confidence in the person's competence over time and in various contexts
- all assessment that is part of a structured learning experience must include a combination of direct, indirect and supplementary evidence

- where assessment is for the purpose of recognition (RCC/RPL), the evidence provided will need to be authenticated and show that it represents competency demonstrated over a period of time
- assessment can be through simulated project-based activity and must include evidence relating to each of the elements in this unit

Questioning will be undertaken in a manner appropriate to the skill levels of the operator, any cultural issues that may affect responses to the questions, and reflecting the requirements of the competency and the work being performed.

Range Statement

The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. ***Bold italicised*** wording, if used in the Performance Criteria, is detailed below. Add any essential operating conditions that may be present with training and assessment depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts.

- Inspections*** includes:
- interaction and communication with other employees, other authorities and the general public
 - visual observation
 - implementation of reporting procedures that may also include:
 - procedures for the implementation of by-laws
 - organisational policies
 - standard operating procedures
 - statutory requirements
- Surface supply areas*** may include:
- direct catchment areas
 - rural locations
- Organisational and statutory requirements*** may include:
- by-laws and organisational policies
 - standard operating procedures
 - environment protection
 - occupational health and safety including use of personal protective equipment
 - hazardous substances
 - road signage
 - electrical
 - dangerous goods
 - World Health Organisation standards
 - Australian Drinking Water Guidelines
 - Australian National Committee on Large Dams guidelines
- Flow regulating systems*** may include:
- gravity fed systems
 - pumping systems
 - valving systems
 - control systems
 - gated storages
 - emergency overflow and diversion systems
 - inspection chambers
 - metered pits and flow chambers
- Regulation of flow*** may require:
- the adjustment of gravity fed systems
 - pumping systems
 - valving systems
 - control systems

Specific storage inspection
may include:

- gated storages
- emergency overflow and diversion systems
- inspection chambers
- metered pits and flow chambers
- retaining walls and other major or minor structural components
- gates
- valves
- major or minor flow control and adjustment equipment

Unit Sector(s)

Not applicable.

Competency field

Collection and distribution.