



Australian Government

Department of Education, Employment and Workplace Relations

NWP324B Inspect and report river regulation operations

Revision Number: 2

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Modification History

NWP324B Release 2: Layout adjusted. No changes to content.

NWP324B Release 1: Primary release.

Unit Descriptor

This unit of competency describes the outcomes required to inspect and monitor river systems, coordinate river system operations and measure and report on river flows, including flood plains and river environments. The ability to collect data and samples, monitor and adjust regulatory systems, identify and investigate river system problems and to produce technical reports are essential to performance.

Application of the Unit

This unit supports the attainment of skills and knowledge required for field staff with a specific responsibility monitoring and coordinating river regulation operations.

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 monitor system performance and usage.	<p>1.1 Schedule routine <i>inspections</i> of rivers or waterways and monitor problem reporting according to <i>organisational and statutory requirements</i>.</p> <p>1.2 Collect and report on data relating to the condition of the river system and usage according to organisational requirements.</p> <p>1.3 Monitor the collection and recording of water samples according to organisational procedures and <i>equipment used</i>.</p> <p>1.4 Monitor water quality according to organisational requirements.</p>
2 Regulate flows.	<p>2.1 Inspect <i>flow regulating systems</i> and determine and apply adjustments required to meet demand.</p> <p>2.2 Regulate river flows according to organisational requirements.</p>
3 Operate and coordinate processes.	<p>3.1 Identify, address and report conditions of the river system according to organisational requirements.</p> <p>3.2 Integrate processes to improve river system performance according to organisational and statutory requirements.</p> <p>3.3 Receive, analyse and report flood plain data according to organisational requirements.</p>
4 Complete documentation.	<p>4.1 Review and action investigation results according to organisational requirements.</p> <p>4.2 Compile reports from river system data to meet organisational requirements.</p>

Required Skills and Knowledge

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

Required skills:

- solve operational problems
- produce reports and logs
- collect and analyse data
- use safety equipment and personal protective equipment
- use marine craft
- interpret plans, policies, procedures and standards
- communicate with employees and customers
- use communication equipment
- give and receive instructions
- identify control system faults
- identify water quality risks and prepare protection strategies

Required knowledge:

- river flow regimes
- coordination processes
- environmental aspects of river systems
- system processes
- safety procedures
- policies, standard operating procedures and legislation
- communication systems
- risk factors and potential hazards involved with river systems
- equipment operation, capacity and limitations
- effects of weather and conditions on operation of river systems
- pipes and fittings
- pumping and valving systems
- control systems
- pest control specifications

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 monitor river systems, coordinate river system operations and measure and report on river flows including:

- inspecting rivers and waterways
- monitoring river systems and collecting and reporting data
- collecting samples
- inspecting and adjusting flow regulating systems
- assessing and reporting on the condition of the river system area
- analysing flood plain data
- monitoring and integrating river system processes
- completing documentation
- implementing actions resulting from investigations

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

In all cases where practical assessment is used it will be combined with targeted questioning to assess the underpinning knowledge. 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.

Inspection may require:

- 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 and statutory requirements

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
- World Health Organisation standards
- relevant Australian Standards
- manufacturer's standards and specifications
- Australian Drinking Water Guidelines

Equipment used may include:

- electronic monitoring and metering systems
- manual chart recording systems
- on- and off-road vehicles
- marine craft
- personal protective equipment
- communication equipment

Flow regulating systems may include:

- pumping systems
- valving systems
- control systems

Unit Sector(s)

Not applicable.

Competency field

Collection and distribution.