



Australian Government

NWPCAD009 Monitor and implement dam maintenance

Release: 1

NWPCAD009 Monitor and implement dam maintenance

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 monitor and implement dam maintenance.

It includes maintaining dam safety mechanisms, interpreting technical documentation, investigating and resolving maintenance problems, collecting and analysing technical information.

This unit applies to those working as field and operational staff with a specific responsibility for the maintenance of dams. Those undertaking this unit would work under appropriate supervision while performing routine tasks in a limited range of familiar contexts.

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

Pre-requisite Unit

Not applicable.

Competency Field

Catchment and Dams

Unit Sector

Not applicable.

Elements and Performance Criteria

ELEMENTS

Elements describe the essential outcomes.

1 Prepare for dam maintenance

PERFORMANCE CRITERIA

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

1.1 Prepare for dam maintenance according to workplace procedures and operational requirements

	1.2	Inspect dam and develop a maintenance plan according to workplace procedures
2 Implement dam maintenance plans	2.1	Schedule dam maintenance works and communicate with relevant personnel
	2.2	Maintain civil and mechanical dam assets according to workplace procedures
	2.3	Operate and test equipment relevant to dam maintenance
3 Compile maintenance and inspection reports	3.1	Collect required data from inspections, measurement instruments and relevant personnel
	3.2	Collate, process, evaluate, validate, record and store data according to workplace procedures
	3.3	Record and report structural, material and/or equipment problems and recommend remedial action to relevant personnel

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 NWPSOU023 Monitor and implement dam maintenance.

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 NWPCAD009 Monitor and implement dam maintenance

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:

- analysing and processing data
- collecting and evaluating technical information
- conducting inspections
- coordinating maintenance activities
- identifying and correcting maintenance problems
- identifying security and access maintenance issues
- inspecting and operating relevant equipment and instruments
- interpreting plans, drawings, instructions, workplace procedures, policies and standards
- interpreting technical documentation
- monitoring and implementing dam maintenance
- performing or coordinating maintenance on at least one of the following types of dams and associated equipment:
 - concrete
 - embankment
- preparing required reports
- proposing and justifying maintenance activities
- using relevant tools and machinery
- using safety, rescue and personal protective equipment

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:

- concrete structure, strengths and deterioration
- control systems
- dam construction procedures
- dam design principles
- dam failure and safety mechanisms
- dam maintenance principles and practices

- effects of weather and conditions on assets
- environmental aspects of maintenance
- equipment operation including:
 - flow control devices
 - lifting equipment
- hazardous materials handling
- historic dam information
- lock out procedures for mechanical and electrical installations
- maintenance procedures
- materials science
- principles of hydraulics
- principles of soil mechanics
- relevant legislation, regulations and workplace procedures
- relevant utilities and service bodies
- risk factors and potential hazards of maintenance of dam assets
- system layout

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>