



Australian Government

NWPNET006 Apply construction principles to civil works in the water industry

Release: 1

NWPNET006 Apply construction principles to civil works in the water industry

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 apply construction principles to civil works in the water industry.

It includes the fundamental principles and concepts associated with planning, estimating and costing for the preparation and interpretation of tender documents, costs estimates and reporting actual versus estimated project costs. It also includes documenting people, plant, equipment and processes employed in the water industry.

This unit applies to para-professionals in a water operations environment where civil construction is undertaken for new or maintenance works.

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

Pre-requisite Unit

Not applicable.

Competency Field

Networks

Unit Sector

Not applicable.

Elements and Performance Criteria

ELEMENTS

Elements describe the essential outcomes.

PERFORMANCE CRITERIA

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

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|--|---|
| 1 Identify civil project | 1.1 Identify and implement work health and safety (WHS) and environmental requirements for the civil work area |
| | 1.2 Identify hazards, assess risks and implement control measures |
| | 1.3 Identify planning, estimating, costing and construction requirements from project documentation, work requests, maintenance requests and discussions with relevant personnel |
| | 1.4 Identify construction project materials from project documents, work requests, maintenance requests and discussions with relevant personnel |
| | 1.5 Evaluate civil design references to complete planning, estimating, costing and construction principles according to workplace procedures |
| | 1.6 Obtain resources and equipment needed for work and check for correct operation according to workplace procedures |
| | 1.7 Consult relevant personnel to ensure civil work is co-ordinated effectively at the work site |
| | 1.8 Conduct community and stakeholder impact assessments according to workplace procedures |
| 2 Apply construction principles to civil projects | 2.1 Apply planning, estimating, costing and construction principles according to workplace procedures |
| | 2.2 Use civil design references according to manufacturer specifications, techniques and workplace procedures |
| | 2.3 Record, analyse and apply outcomes according to workplace procedures |
| | 2.4 Select methods for dealing with unexpected situations on the basis of discussions with appropriate personnel, job specifications and workplace procedures |
| | 2.5 Communicate with community and stakeholders according to workplace procedures |
| 3 Compile, document and report results | 3.1 Record, analyse and report results according to project brief and workplace procedures |
| | 3.2 Maintain and store civil design references according to |

industry standards and workplace procedures

3.3 Store and archive results according to workplace procedures

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.

Unit Mapping Information

This is a new unit. 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>

Assessment Requirements for NWPNET006 Apply construction principles to civil works in the water industry

Modification History

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Performance Evidence

Evidence required to demonstrate competence in this unit must be relevant to and satisfy all of the requirements of the elements and performance criteria on at least one occasion and includes:

- applying, identifying and evaluating construction principles to a civil or maintenance project
- applying relevant work health and safety (WHS) and environmental requirements
- communicating with relevant personnel and stakeholders
- completing relevant organisational documentation and permits
- compliance with regulatory requirements
- conducting impact statements
- consulting with relevant personnel
- implementing risk control measures
- obtaining resources and equipment
- planning, estimating and costing of a civil or maintenance project
- reading and analysing project designs and briefs
- recording, reporting, storing and archiving results

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:

- civil construction materials
- construction principles and standards including:
 - communication
 - costing
 - estimating
 - planning
- equipment required to perform construction
- fundamental construction principles
- pipework bed, joint and laying techniques
- relevant civil construction WHS/OHS legislated requirements
- risk control processes

- relevant manufacturer specifications
- relevant workplace documentation including permits
- relevant workplace policies and procedures
- traffic management plan
- types of excavations

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 suitable workplace operational situations. Where this is not appropriate, assessment must occur in suitable simulated workplace operational situations reflecting actual 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, facilities, equipment and personal protective equipment currently used in industry
- applicable relevant documentation including workplace procedures, industry standards, equipment specifications, regulations, codes of practice and operation manuals.

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