



Australian Government

Assessment Requirements for RIICWD506D Prepare detailed design of canals

Release: 1

Assessment Requirements for RIICWD506D Prepare detailed design of canals

Modification History

Not applicable.

Performance Evidence

Evidence is required to be collected that demonstrates a candidate's competency in this unit. Evidence must be relevant to the roles within this sector's work operations and satisfy all of the requirements of the performance criteria of this unit and include evidence that the candidate:

- locates and applies relevant legislation, documentation, policies and procedures
- implements the requirements, procedures and techniques for the safe, effective and efficient completion of the detailed design of canals including:
 - accessing and interpreting plans, drawings, specifications and design briefs
 - accessing and interpreting engineering survey and geotechnical information
 - accessing and interpreting hydrological, meteorological, cultural and heritage data
 - accessing and interpreting environmental controls test results
 - applying computer based design technology
 - applying engineering graphical presentation techniques
- works effectively with others to undertake and complete the detailed design of canals that meets all the required outcomes including:
 - complying with written and verbal reporting requirements and procedures
 - communicating clearly and concisely with others to receive and clarify work instructions
 - communicating clearly and concisely with others to coordinate work activities
 - participating in the review of canal designs
- demonstrates consistent and timely completion of the detailed design of canals that safely, effectively and efficiently meet all of the required outcomes on a minimum of one (1) occasion including:
 - calculate areas, volumes, flow rates, capacities, densities, mass, percentages and grades
 - maintain design and cost records
 - determining canal design loadings or capacity requirements
 - select canal design options
 - size canal design components
 - identify and selecting appropriate construction techniques
 - develop and applying design plans
 - carry out risk assessments
 - interpret and analyse data
 - prepare a design plan
 - prepare a cost estimate
 - obtain design approval
 - complete and submitting design cost
 - participate in performance review of the design process
 - provide clarification and advice to those applying the design
 - perform a validation of the design
 -

Knowledge Evidence

The candidate must demonstrate knowledge in preparing detailed designs of canals through:

- accessing, interpreting and applying legislative, organisation and site requirements and procedures for:
 - risk assessment and management
 - statutory compliance
 - work health and safety
 - environmental management
 - cultural and heritage
 - quality management
 - Australian and other relevant standards
 - industry and organisational design
 - current industry best practice
 - canal design options
 - canal bank protection options
 - canal geometrics
 - reporting and documentation
 - design approvals and records filing
 - performance reviews
 - systems close-out
- identifying and addressing potential hazards, constraints and conditions
- applying techniques for choosing preferred options
- applying team leadership techniques
- applying operational techniques
- identifying canal construction plant and equipment capabilities
- applying cost estimation techniques
- applying design review principles
-

Assessment Conditions

- An assessor of this unit must satisfy the requirements of the NVR/AQTF or their successors; and Industry regulations for certification and licensing; and,
- this unit must be assessed in the context of this sector's work environment; and,
- this unit must be assessed using Resources and Infrastructure Industry sector specific policies, procedures, processes and operational manuals; and,
- an assessor must demonstrate the skills and knowledge of this unit through five (5) years' work experience in the Industry sector; and,
- where the assessor does not have current experience a co-assessment or partnership arrangement needs to exist between the qualified assessor and an Industry technical expert/ subject matter expert. The Industry technical expert/subject matter expert must hold the unit being assessed and be currently working in the sector with a minimum of two (2) years' of current work experience.
-

Links

SkillsDMC RII Companion Volumes -

http://www.skillsdmc.com.au/training/rii_training_package

