



Australian Government

Assessment Requirements for CPCCWP5003 Design waterproofing to internal wet area

Release: 1

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Modification History

Release 1 This version first released with CPC Construction, Plumbing and Services Training Package Release 9.0.

Newly created unit.

Performance Evidence

A person demonstrating competency in this unit must satisfy the requirements of the elements, performance criteria and foundation skills of this unit, in addition to the specific performance and knowledge evidence described below.

Candidates must:

- develop two (2) waterproofing designs for internal wet areas.

In doing so, the candidate must:

- develop one (1) design for wet areas and change rooms, including open unenclosed group showers with multiple wastes and disabled access which must include:
 - a cross-section design of the complete system, including strata layers, provision of falls, water stop details, extent of membrane application and compatible finishes for intended use
- develop one (1) design for a high risk and high usage wet area selected from one of the following:
 - douche room with handheld rose
 - steam room
 - birthing suite with a birthing bath and access steps
 - bathroom with type 2 open unenclosed shower, with window in shower area, free standing bath, wall mount vanity and falls to full floor areasand must include:
 - a cross-section design of the complete system, including strata layers, provision of falls, water stop details, extent of membrane application, water inlet and outfalls and compatible finishes for intended use
- confirm screen/barrier, water inlet positions, number and position of floor wastes, floor water stop positions and vertical water stop positions
- provide evidence of compliance with principal design requirement, stakeholder needs, National Construction Code (NCC) performance requirements, Australian Standards, work health and safety (WHS), environmental requirements, manufacturer's specifications, and drawings and specifications.

The evidence of compliance report must detail:

- class of building
- type of construction
- category of wet area
- category of shower
- water inlet and outfalls
- overflows effects to area affected by leaks adjoining and below the wet area
- compatibility of materials specified, including finishes
- provide a risk assessment report for the two (2) required designs detailing the:
 - waterproofing system solution for the intended service use and site condition
 - management of potential defects in the waterproofing system
 - consequences of water entering the relevant space
 - feasibility of repair of the waterproofing system.

Knowledge Evidence

To be competent in this unit, a candidate must demonstrate knowledge of:

- key principles of surface water movement and sub-surface water movement, drainage and capillarity
- role for waterproofing, including:
 - retention within a wet area
 - exclusion from non-water-resistant materials
 - design for surface conditions
- various types of construction and their permeability to water and moisture, including:
 - concrete
 - masonry
 - framed
- methods of waterproofing to internal wet areas suited to type of construction
- key design philosophies for internal wet area waterproofing, including:
 - deformation, stress/strain, especially flexural, compressive and tensile stresses
 - incorporation of acoustic systems
 - energy efficiency, including:
 - ventilation requirements in buildings
 - incorporation of heating elements such as under-floor heating
- internal wet area waterproofing systems available and knowledge of their properties for system selection for the conditions, including:
 - bonded sheet membranes
 - liquid applied membranes
- building elements and integration, including:
 - product properties and compatibility with building elements

- installation method and practices
- stages of installation and inspection benchmarks
- waterproofing systems design and relationship with building design
- risk assessment of internal wet areas, including:
 - assessment of service conditions
 - risk and management of interstitial condensation within building elements as part of design
 - consequence of defects affecting the use of the intended area
 - feasibility of repair of the waterproofing system
- stakeholders:
 - architect
 - engineer
 - builder
 - building owner
 - consumer
 - design team
 - construction team
 - certifier
 - building surveyor
 - regulators
- properties of waterproofing systems available:
 - substrate assessment and preparation
 - combining components to form a system
 - component compatibility in a combined system
 - component properties for site conditions
- component installation practices
- system analysis for effectiveness
- assessment of complex water and moisture ingress situations:
 - moisture and water remedial system relationships
 - combination of systems to form multiple barriers
- application rates of specified waterproofing systems and installation procedures
- methods for calculating the quantities of product required to complete the waterproofing works specified
- the advantages and disadvantages of the different systems, including:
 - combinations of different systems and their limitations
 - maintenance and aftercare requirements
 - the form and feasibility of remedial work
- types of finishing systems, including decorative finishes
- implications of dampness affecting timber in buildings, including:

- identification of timbers that have been affected by water, decay fungi or wood consuming insects
- providing suitable advice on the need for specialist assessment.

Assessment Conditions

Assessors must meet the requirements for assessors contained in the Standards for Registered Training Organisations.

Assessment of performance must be undertaken in the workplace or simulated workplace environment. A simulated workplace is one that fully replicates the resources, environment and any time and productivity pressures that exist in the actual workplace, and which meets industry standards for safety and environmental practices.

Candidates must have access to:

- relevant task or design specifications
- Australian Standards, relevant building legislation, industry codes, NCC and requirements of workplace policies and procedures as required by Commonwealth, state and territory regulators
- relevant environmental requirements.

Links

Companion volumes to this training package are available at the VETNet website - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=7e15fa6a-68b8-4097-b099-030a5569b1ad>