



Australian Government

Department of Education, Employment and Workplace Relations

CPCCSV6009A Implement performance-based codes and risk management principles for buildings up to three storeys

Release: 1

CPCCSV6009A Implement performance-based codes and risk management principles for buildings up to three storeys

Modification History

Not Applicable

Unit Descriptor

Unit descriptor	This unit of competency specifies the outcomes required to implement performance-based codes, risk assessment and risk management principles to commercial and residential buildings up to three storeys and not exceeding a maximum floor area of 2000 square metres.
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Application of the Unit

Application of the unit	This unit of competency supports the attainment of the understanding and skills to implement performance-based codes and risk management principles for buildings up to three storeys within the context of relevant legislation, the Building Code of Australia (BCA) and Australian standards.
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Licensing/Regulatory Information

Not Applicable

Pre-Requisites

Prerequisite units	Nil
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Employability Skills Information

Employability skills 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 performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the required skills and knowledge section and the range statement. Assessment of performance is to be consistent with the evidence guide.

Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
1. Evaluate performance-based designs.	1.1. Role of regulation of buildings and the built environment within society are identified and applied. 1.2. Societal goals related to the construction and use of buildings are interpreted. 1.3. BCA hierarchy and the role of objectives, functional statements and performance requirements are identified and recorded. 1.4. Differences between public policy and professional judgement are identified and recorded.
2. Apply the performance-based BCA.	2.1. Various assessment methods for performance-based codes, risk assessment and risk management principles contained in the BCA and their application are identified and applied for building projects requiring assessment and management of risk. 2.2. Methodologies for determining correct performance requirements for buildings to be satisfied are demonstrated. 2.3. Processes for involving relevant parties in the decision making process are determined. 2.4. Fire safety engineering brief (FSEB) process is identified and applied. 2.5. Assessment report for a performance-based solution is prepared. 2.6. Importance of documentation and record keeping for performance-based solutions is identified and applied. 2.7. Impacts of a performance-based solution on building maintenance and alterations are identified and reported.
3. Evaluate risk assessment.	3.1. Methods of determining and assessing risks are identified and applied. 3.2. Consequences of various forms of risk are identified and reported. 3.3. Basic probabilistic analysis, including use of event trees, is applied in accordance with risk assessment principles for fire safety engineering. 3.4. Statistics used in risk assessment practices are interpreted. 3.5. Research data sources for risk assessment and management are identified and applied.
4. Evaluate fire safety engineering.	4.1. Potential fire hazards and causes of fire are identified and reported.

ELEMENT

PERFORMANCE CRITERIA

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- 4.2. Fire loads and fire growth characteristics are identified and interpreted.
 - 4.3. Research data sources for fire safety engineering are identified and interpreted.
 - 4.4. Principles of fire detection, suppression and extinguishment are applied.
 - 4.5. Tenability limits and effects and toxicity of smoke on building occupants are identified and listed in accordance with fire engineering principles.
 - 4.6. Human behaviour and movement principles are identified and applied.
 - 4.7. Fire brigade activities and intervention principles are recorded.
 - 4.8. Compute software applications used in fire safety engineering are identified and their limitations of use assessed.

Required Skills and Knowledge

REQUIRED SKILLS AND KNOWLEDGE

This section describes the skills and knowledge required for this unit.

Required skills

Required skills for this unit are:

- ability to recognise procedures, follow instructions, respond to change and contribute to workplace responsibilities, such as current work site environmental and sustainability frameworks or management systems
- communication skills to:
 - enable clear and direct communication, using questioning to identify and confirm requirements, share information, listen and understand
 - evaluate own actions to make judgements about performance and necessary improvements
 - read and interpret:
 - BCA
 - legislation
 - other relevant documentation
 - use language and concepts appropriate to cultural differences
 - use and interpret non-verbal communication
 - written skills to:

REQUIRED SKILLS AND KNOWLEDGE

- document building requirements
- report alternative approaches to construction problems
- numeracy skills to apply probabilistic analysis and interpret statistics and other data
- teamwork skills to work effectively with others.

Required knowledge

Required knowledge for this unit is:

- authorities and powers of a building surveyor
- building fire safety
- DTS provisions
- fire safety engineering guidelines
- processes for the administration and preparation of documentation
- processes for the interpretation of reports, working drawings and specifications
- relevant federal, state or territory legislation and local government policy and procedures
- research methods.

Evidence Guide

EVIDENCE GUIDE

The evidence guide provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge, range statement and the Assessment Guidelines for the Training Package.

Overview of assessment

This unit of competency could be assessed in the workplace or a close simulation of the workplace environment, provided that simulated or project-based assessment techniques fully replicate construction workplace conditions, materials, activities, responsibilities and procedures.

Critical aspects for assessment and evidence required to demonstrate competency in this unit

A person who demonstrates competency in this unit must be able to provide evidence of the ability to:

- comply with OHS regulations applicable to workplace operations
- apply organisational management policies and procedures, including quality assurance requirements where appropriate
- evaluate and report data, findings and recommendations for the implementation of risk management strategies as a result of risk assessment and application of performance-based codes for at least one building development project up to three storeys, and in compliance with the applicable local government authority, relevant legislation and the BCA
- provide reports to appropriate body/individual as determined by the project brief.

Context of and specific resources for assessment

This competency is to be assessed using standard and authorised work practices, safety requirements and environmental constraints.

Assessment of essential underpinning knowledge will usually be conducted in an off-site context.

Assessment is to comply with relevant regulatory or Australian standards' requirements.

Resource implications for assessment include:

- an induction procedure and requirement
- realistic tasks or simulated tasks covering the mandatory task requirements
- relevant specifications and work instructions

EVIDENCE GUIDE

- tools and equipment appropriate to applying safe work practices
- support materials appropriate to activity
- workplace instructions relating to safe work practices and addressing hazards and emergencies
- material safety data sheets
- research resources, including industry related systems information.

Reasonable adjustments for people with disabilities must be made to assessment processes where required. This could include access to modified equipment and other physical resources, and the provision of appropriate assessment support.

Method of assessment

Assessment methods must:

- satisfy the endorsed Assessment Guidelines of the Construction, Plumbing and Services Training Package
- include direct observation of tasks in real or simulated work conditions, with questioning to confirm the ability to consistently identify and correctly interpret the essential underpinning knowledge required for practical application
- reinforce the integration of employability skills with workplace tasks and job roles
- confirm that competency is verified and able to be transferred to other circumstances and environments.

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, with a decision on competency only taken at the point when the assessor has complete confidence in the person's demonstrated ability

EVIDENCE GUIDE

and applied knowledge

- all assessment that is part of a structured learning experience must include a combination of direct, indirect and supplementary evidence.

Assessment processes and techniques should as far as is practical take into account the language, literacy and numeracy capacity of the candidate in relation to the competency being assessed.

Supplementary evidence of competency may be obtained from relevant authenticated documentation from third parties, such as existing supervisors, team leaders or specialist training staff.

Range Statement

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. 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) may also be included.

Performance-based codes, risk assessment and risk management principles include:

- evaluation of new and proposed buildings for the purposes of highlighting potential risks and managing those risks through introduction of alternative solutions in compliance with the BCA.

Building projects requiring assessment and management of risk include:

- calculation and processing of application or inspection fees
- project milestones
- provision of site access/facilities
- work schedules.

Buildings are limited to:

- three storeys and a maximum floor area not exceeding 2000 square metres, complying with the BCA Class 2 to 9 buildings.

Unit Sector(s)

Unit sector Construction

Co-requisite units

Co-requisite units Nil

Functional area

Functional area