



Australian Government

Assessment Requirements for CPCSF5001 Define scope and hazard level of fire systems design projects

Release: 1

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Modification History

- Release 1 This version first released with CPC Construction, Plumbing and Services Training Package Release 5.0.
- Supersedes and is equivalent to CPCSF5001A Define scope and hazard level of fire systems design projects. Updated to meet the Standards for Training Packages 2012.

Performance Evidence

To demonstrate competency, a candidate must meet the performance criteria for this unit by:

- interpreting design concepts, briefs and specifications
- establishing hazard levels and building classifications
- identifying relevant localised legislation, codes and standards for each of the following project types:
 - low-rise building
 - medium-rise building
 - high-rise building (over 25 metres)
 - building over 50 metres in height
 - building classifications in the National Construction Code (NCC)
- selecting and applying one of the following locations to the each of the above project types ensuring all locations have been used at least once:
 - local
 - involving more than one state or territory
 - international.

Knowledge Evidence

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

- fire engineering principles:
 - innovative fire systems
 - relevant computer-aided design (CAD) programs such as:
 - archi CAD
 - Revit
- relevant current legislation, codes and standards:
 - building acts

- building regulations
- infrastructure supply regulations
- the Building Code of Australia (BCA)
- NCC
- jurisdictional authorities in addition to the BCA and NCC
- Australian standards for fire systems
- international standards for fire systems
- other fire systems standards commonly required by building insurers
- fire systems technology and components:
 - water-based systems
 - wet pipe sprinkler systems
 - deluge and drencher systems
 - dry pipe sprinkler systems
 - pre-action sprinkler systems
 - early suppression fast response (ESFR)
 - hydrants, hose reels and monitors
 - water supply tanks
 - fire pump sets
 - high-pressure water mist systems
 - gas suppression
- detection and warning systems:
 - emergency warning and intercommunications systems (EWIS)
 - fire detection and alarm systems
 - smoke control systems
- purpose and operation of fire systems:
 - layout
 - system operation
 - performance requirements
 - maintenance standards
 - system activation and operation
- passive fire safety elements:
 - identification of passive elements
 - impact of fire systems design on passive elements
 - specifications required to safeguard integrity of passive fire element performance where penetrations are necessitated by the fire systems design
- characteristics and limitations of products and materials used in fire systems and issues relating to material compatibility
- interconnection of fire systems:
 - cause and effect matrix
 - interface with other services

- construction industry terminology
- different types of buildings for fire systems design projects:
 - residential
 - commercial
 - industrial
 - mixed classification
- building classifications:
 - classifications in the BCA such as:
 - occupancy classes
 - multiple classifications
 - parts with more than one classification
 - classifications specified in relevant Australian or international standards
 - classifications relating to standards or codes applied by building insurers
- how to access relevant information, including codes and standards
- relevant work health and safety (WHS) requirements to define scope and hazard level of fire systems design projects.

Assessment Conditions

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

This unit must be assessed in the workplace or a close simulation using realistic workplace conditions, materials, activities, responsibilities, procedures, safety requirements and environmental considerations.

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>