



Australian Government

**Assessment Requirements for CPCSF5011
Provide design documentation and review
and support fire system installation
processes**

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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 CPCSF5011A Provide design documentation and review and support fire system installation processes. 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:

- preparing accurate documentation and provision of ongoing support for the installation of fire systems in four projects and buildings, including for a:
 - commercial building
 - factory
 - residential nursing home
 - high-rise building.

Knowledge Evidence

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

- reading and interpreting drawings, plans, reports and specifications
- file sharing and storage processes
- communication processes
- workplace design tools and processes
- level of accuracy required in detailed design drawings
- naming conventions for design drawings and drawing register
- computer software functions and operation:
 - word processing
 - spreadsheet
 - email
 - internet
 - proprietary project management software
- relevant current legislation, codes and standards:
 - building Acts

- building regulations
- infrastructure supply regulations
- the Building Code of Australia (BCA)
- National Construction Code (NCC)
- Australian standards for fire systems
- international standards for fire systems
- jurisdictional authorities in addition to the BCA and NCC
- other fire system standards commonly required by building insurers
- protection requirements for different buildings, including:
 - low-rise buildings
 - processing building applications
 - warehouse buildings under 13.7 m high
 - warehouse buildings over 13.7 m high
 - medium-rise buildings
 - high-rise buildings (over 25 metres)
 - buildings over 50 metres in height
- 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)
 - gaseous suppression systems
 - water spray systems
 - water mist systems
 - wet chemical suppression systems
 - foam suppression systems
 - hydrants, hose reels and monitors
 - water supply tanks
 - fire pump sets
 - detection and warning systems:
 - occupant warning systems
 - emergency warning and intercommunications systems (EWIS)
 - fire detection and alarm systems
 - smoke control systems
 - emergency lighting systems
- purpose and operation of fire systems:
 - layout
 - special products and hazards

- system operation
- performance requirements
- maintenance standards
- system activation and operation
- characteristics and limitations of products and materials used in fire systems and issues relating to material compatibility
- 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
- basic principles of structural engineering
- characteristics of building materials
- construction industry terminology
- roles and responsibilities of relevant building project personnel:
 - architect
 - lead contractor
 - mechanical engineer
 - hydraulic engineer
 - electrical engineer
- on-site issues, including technical, that can arise during the construction phase and impose changes to the designs of fire systems and other services:
 - installation issues:
 - discrepancies between designed and actual structure
 - discrepancies between designed and actual systems for other services:
 - mechanical
 - hydraulic
 - electrical
 - errors in supplied materials and components
 - scheduling and sequencing changes
 - problems with access to installation locations of fire system components
 - installation implications:
 - on-site work health and safety (WHS) risks
 - manual handling
 - confined spaces
 - working at height
- installation methods:
 - access requirements:
 - height of pipe
 - length of pipe

- weight of materials
- distance from beams
- distance from walls
- WHS requirements
- sustainability requirements and ratings:
 - energy conservation
 - water conservation
- mathematic principles, equations and calculation methods relevant to the system type.

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>