



**Australian Government**

# **CPC50520 Diploma of Fire Systems Design**

**Release 1**

# CPC50520 Diploma of Fire Systems Design

## Modification History

Release 1 This version first released with CPC Construction, Plumbing and Services Training Package Release 5.0.

Supersedes and is equivalent to CPC50509 Diploma of Fire Systems Design.  
Updated to meet the Standards for Training Packages 2012.

## Qualification Description

The Diploma of Fire Systems Design reflects and supports the role of fire systems designers who prepare detailed technical designs and documentation for water-based fire suppression systems and/or fire detection and occupant warning systems.

The Diploma of Fire Systems Design also includes a stream qualification for the annual certifier of fire systems.

Fire systems designers may enter the industry from a diverse range of occupations and sectors. They may choose to extend their careers by seeking to undertake subsequent higher education qualifications in related disciplines, including mechanical engineering and fire engineering.

The qualification has common core and elective unit of competency requirements that cover common skills for fire systems designers and certifiers, as well as specialist streams for:

- water-based systems
- detection and warning systems
- annual certifiers.

## Entry Requirements

There are no entry requirements for this qualification.

## Packaging Rules

To achieve this qualification, the candidate must demonstrate competency in 12 units of competency:

- 4 core units
- 8 elective units.

The elective units are to be chosen as follows.

All units from one of the specialisations (Group A, B or C) must be completed. That is:

- all 8 units from *Group A Water-based systems*, or

- all 5 units from *Group B Detection and warning systems* plus 3 additional electives, or
- all 4 units from *Group C Annual certifier* plus 4 additional electives.

The additional electives must ensure the integrity of the AQF alignment and contribute to a valid, industry-supported vocational outcome. Of these, 1 unit can be selected from any endorsed Training Package or accredited course at a Diploma or higher AQF level. One unit can be selected from Group A in the Certificate IV in Plumbing and Services. The remainder are to come from groups A, B, C or D listed below.

An asterisk (\*) against a unit code below indicates that the unit has a prerequisite. Please check the unit for information on this. All prerequisites are packaged in the qualification.

### **Core units**

CPCCWHS2001	Apply WHS requirements, policies and procedures in the construction industry
CPCSFS5001	Define scope and hazard level of fire systems design projects
CPCSFS5002	Research and interpret detailed fire systems design project requirements
CPCSFS5005	Research and evaluate fire system technologies and components

### **Group - A Water-based systems elective unit**

CPCPCM4013	Produce 2D architectural drawings using design software
CPCSFS5003	Develop plans and methodology for fire systems design projects
CPCSFS5006	Create detailed designs for fire sprinkler systems
CPCSFS5007	Create detailed designs for hydrant and hose reel systems
CPCSFS5009	Create detailed designs for fire systems' water supplies
CPCSFS5010	Provide documentation and support for fabrication of fire sprinkler systems
CPCSFS5011	Provide design documentation and review and support fire system installation processes
CPCSFS5013	Support commissioning processes and finalise fire systems design projects

### **Group B - Detection and warning systems elective units**

CPCPCM4013	Produce 2-D architectural drawings using design software
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CPCSFS5003	Develop plans and methodology for fire systems design projects
CPCSFS5008	Create detailed designs for fire detection and warning systems
CPCSFS5011	Provide design documentation and review and support fire system installation processes
CPCSFS5013	Support commissioning processes and finalise fire systems design projects

### **Group C - Annual certifier elective units**

BSBAUD513	Report on a quality audit
CPCCBC4012	Read and interpret plans and specifications
CPCSFS5014	Conduct annual fire systems certification inspections
CPCSFS5015	Assess documentation for annual fire systems certification inspections

### **Group D - General elective units**

BSBOPS404	Implement customer service strategies
BSBOPS505	Manage organisational customer services
BSBPMG535	Manage project information and communication
BSBPMG430	Undertake project work
BSBWHS513	Lead WHS risk management
CHCDIV001	Work with diverse people
CPCCBC4012	Read and interpret plans and specifications
CPCCBC5009	Identify services layout and connection methods to medium rise construction projects
CPCCSV5009*	Assess the impact of fire on building materials
CPCPCM3024	Prepare simple sketches and drawings
CPCPCM4013	Produce 2-D architectural drawings using design software

## Qualification Mapping Information

<b>CPC Construction, Plumbing and Services Training Package 5.0</b>	<b>CPC08 Construction, Plumbing and Services Training Package</b>	<b>Comments</b>	<b>E/NE</b>
CPC50520 Diploma of Fire Systems Design	CPC50509 Diploma of Fire Systems Design	Supersedes and is equivalent to CPC50509 Diploma of Fire Systems Design.  Updated to meet the Standards for Training Packages 2012.	E

## 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>