



Australian Government

CPCPFS4027 Commission fire sprinkler systems

Release: 2

CPCPFS4027 Commission fire sprinkler systems

Modification History

- Release 2 This version first released with CPC Construction, Plumbing and Services Training Package Release 5.1.
Knowledge Evidence formatted for clarity.
- Release 1 This version first released with CPC Construction, Plumbing and Services Training Package Release 5.0.
Supersedes and is equivalent to CPCPFS4027A Commission fire sprinkler systems. Updated to meet the Standards for Training Packages 2012.

Application

This unit specifies the skills and knowledge required to commission fire sprinkler systems.

It covers preparing for the work, identifying and confirming system specifications and requirements, physically testing and commissioning systems, and finalising work processes, including completing records and documentation.

The role may involve interaction with architects, builders, suppliers and relevant planning authorities and requires a sound understanding of applicable legislation including work health and safety (WHS).

This unit's requirements may be carried out by experienced tradespeople such as hydraulic design consultants, fire services supervisors, plumbers or plumbing contractors who employ a team of plumbers.

Work may be undertaken on commercial or industrial buildings, which may be new work sites or existing structures.

In some jurisdictions, this unit of competency may form part of accreditation, licensing, legislative, regulatory or certification requirements.

Pre-requisite Unit

Nil.

Unit Sector

Plumbing

Elements and Performance Criteria

Elements describe the Performance criteria describe what needs to be done to

- essential outcomes. demonstrate achievement of the element.
- 1 Prepare for work
 - 1.1 Consult with approving authority to determine commissioning inspections and tests required to validate fire sprinkler system performance meet design requirements.
 - 1.2 Obtain and review documentation required for commissioning.
 - 1.3 Consult with all associated persons to plan and sequence tasks.
 - 1.4 Select and check the serviceability of appropriate tools, equipment and personal protective equipment (PPE).
 - 1.5 Prepare work area to support efficient commissioning process.
 - 2 Confirm that installation of system components correspond to design requirements.
 - 2.1 Identify fire sprinkler system components and locations on drawings and specifications.
 - 2.2 Inspect building to confirm that locations of system components correspond to design requirements and report any variances.
 - 2.3 Confirm types of sprinkler heads are compatible and report if determined as incompatible.
 - 2.4 Confirm spaces between sprinkler heads are correct and report any variances.
 - 2.5 Inspect and confirm that pipework is functional and report any jointing and supporting defects.
 - 2.6 Inspect valves for different commissioning tests to confirm correct type, labelling, and position.
 - 2.7 Confirm pressure gauge schedule, block plan and interface diagram correspond to design requirements.
 - 2.8 Check and verify water supply components, including any installed pumpsets against design requirements.
 - 2.9 Identify changes to the building or existing conditions that could affect component performance.

- | | | | |
|---|---|-----|---|
| 3 | Conduct pressure tests and restore system to normal pressure. | 3.1 | Conduct static air-pressure test to confirm integrity of the system, record results according to relevant standards and workplace requirements. |
| | | 3.2 | Conduct high pressure hydraulic test to confirm integrity of the system, record results according to relevant standards and workplace requirements. |
| | | 3.3 | Identify and report leaks. |
| | | 3.4 | Drain system and re-charge at normal pressure according to relevant standards and workplace requirements. |
| 4 | Conduct functional tests. | 4.1 | Conduct water supply functional proving test and record results according to relevant standards. |
| | | 4.2 | Conduct functional tests of system components and interfaces, record results according to relevant standards and design requirements. |
| | | 4.3 | Conduct tests according to environmental and sustainability requirements. |
| 5 | Finalise commissioning process. | 5.1 | Confirm system functionality and compliance with design specifications. |
| | | 5.2 | Confirm componentry is set to operational function and pipework is charged with water according to specifications. |
| | | 5.3 | Clean tools and equipment, check for damage and malfunction and store according to manufacturer recommendations and workplace procedures. |
| | | 5.4 | Access information to complete documentation according to workplace requirements and submit within specified timeframes. |

Foundation Skills

Foundation skills essential to performance are explicit in the performance criteria of this unit of competency.

Unit Mapping Information

Supersedes and is equivalent to CPCPFS4027A Commission fire sprinkler systems.

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>