

Unit of Competency CPCPFS4021

Commission domestic and residential fire suppression sprinkler systems

Application

This unit specifies the skills and knowledge required to test and commission domestic and residential fire suppression sprinkler systems in buildings up to four storeys in height containing a commercial kitchen and residential quarters.

It covers preparation for the work, identification and confirmation of system specifications and requirements, physical testing and commissioning of the systems, and work finalisation processes including 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).

Site locations for work application are domestic and residential and may be a new work site or an existing structure, including minimum of a commercial kitchen and living area and multiple residential quarters (or equivalent), and a fire suppression sprinkler system for a domestic residence containing a minimum of two rooms.

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

Prerequisite Unit

Nil.

Elements and Performance Criteria

1. Prepare for work.	<ul style="list-style-type: none">1.1 Obtain current approved plans and specifications.1.2 Identify and apply workplace policies and procedures, work health and safety (WHS) and environmental requirements.1.3 Apply quality assurance requirements to comply with internal and external policies, procedures, standards and authorities.1.4 Consult with associated persons to plan and sequence tasks.1.5 Select and check the serviceability of appropriate tools, equipment and personal protective equipment (PPE).1.6 Prepare work area to support effective commissioning process.
2. Identify system requirements.	<ul style="list-style-type: none">2.1 Identify and confirm system design requirements using job specifications, authorities' requirements and standards.2.2 Identify commissioning requirements using job specifications, authorities' requirements and standards.
3. Test and commission	<ul style="list-style-type: none">3.1 Check sprinkler systems to ensure type and installation conform to standards, job specifications, manufacturer recommendations and authorities' requirements.

system.	<p>3.2 Test system operation and adjust as required to meet all requirements and specifications.</p> <p>3.3 Commission and maintain system to ensure correct operation according to standards, and manufacturer and job specifications.</p>
4. Clean up work area.	<p>4.1 Clear the work area of materials and dispose of, reuse or recycle materials according to legislation, regulations, environmental codes of practice and job specifications.</p> <p>4.2 Clean tools and equipment check for damage and malfunction and store according to manufacturer recommendations and workplace procedures.</p> <p>4.3 Access information to complete documentation according to workplace requirements and submit within specified timeframes, including all required information.</p>

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 CPCPFS4021A Commission domestic and residential fire suppression sprinkler systems.

Links

Companion Volume Implementation Guide:

<https://vetnet.education.gov.au/Pages/TrainingDocs.aspx?q=7e15fa6a-68b8-4097-b099-030a5569b1ad>

Assessment Requirements for CPCPFS4021 Commission domestic and residential fire suppression sprinkler systems

Performance Evidence

To determine competency in this unit a candidate must meet the performance criteria for this unit by:

- commissioning and testing a fire suppression sprinkler system for a domestic and residential fire suppression sprinkler systems in buildings up to four storeys in height containing a commercial kitchen and residential quarters and a fire suppression sprinkler system for a domestic residence containing a minimum of two rooms
- correctly interpreting plans and specifications to complete work to the specified standard within accepted timeframes
- complying with appropriate legislation, organisational processes and regulatory requirements.

Knowledge Evidence

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

- components and materials of fire suppression sprinkler systems including:
 - actuating devices
 - alarms
 - control valve assemblies
 - piping
 - sprinkler heads
 - unplasticised polyvinyl chloride (uPVC), steel or copper pipes and other approved materials
- job safety analysis (JSA) and safe work method statements (SWMS)
- National Fire Protection Association (NFPA) and Factory Mutual performance-based codes of practice
- pressure test systems and procedures
- process of installing, testing and commissioning domestic and residential fire suppression sprinkler systems
- processes for accessing information and for calculating material requirements
- properties of water, including pressure and flow rates
- SI system of measurements
- safe work practices relating to testing and commissioning domestic and residential fire suppression sprinkler systems including:
 - hazard control
 - personal protective equipment (PPE) prescribed under legislation, regulations and workplace policies and practices
 - handling of materials

- o personal protective clothing and equipment prescribed under legislation, regulations and workplace policies and practices
- environmental requirements including:
 - o water quality management
 - o clean-up protection
 - o stormwater protection
 - o waste management
- quality assurance information including:
 - o Australian standards
 - o Environment Protection Authority (EPA)
 - o internal company quality assurance policy and risk management strategy
 - o International Standards Organisation (ISO)
 - o site safety plan
 - o workplace operations and procedures
- tools and equipment including:
 - o hand and power tools
 - o test equipment
- sustainability principles and concepts including efficient:
 - o water usage
 - o harvesting
 - o disposal
- planning and site information including:
 - o charts and hand drawings
 - o instructions issued by authorised organisational or external personnel
 - o job drawings and specifications
 - o manufacturer specifications and instructions
 - o safety data sheets (SDS)
 - o organisation work specifications and requirements
 - o work schedules, plans and specifications
 - o spoken, written and graphical instructions
- regulatory and legislative requirements, particularly those pertaining to:
 - o building codes
 - o work health and safety (WHS) and environmental requirements
 - o plumbing regulations
 - o relevant Australian standards, including AS 2118.1 Automatic fire sprinkler systems
 - o signage
 - o local authorities' requirements.

Assessment Conditions

Assessors must satisfy the requirements for assessors listed 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

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