

Unit of Competency CPCPFS3047

Test and maintain automatic fire sprinklers

Application

This unit of competency specifies the skills and knowledge required to conduct up to, and including five yearly routine service preventative maintenance, fault identification and repair of automatic fire sprinkler installations in new or existing, domestic or commercial structures.

It includes performing maintenance tasks following specifications detailed in maintenance schedules, removing faulty items or components and replacing equipment or components to meet specifications.

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

Prerequisite Unit

CPCPCM2043 Carry out WHS requirements

CPCPFS3034 Install control valve assemblies, actuating devices and local alarms

Elements and Performance Criteria

1. Plan for work.	<ul style="list-style-type: none">1.1 Access, read and apply automatic fire sprinkler maintenance requirements from relevant job plans and specifications, codes, Australian Standards, manufacturer's specifications and jurisdictional requirements.1.2 Identify and apply workplace policies and procedures, work health and safety (WHS) and environmental requirements.
2. Prepare for work.	<ul style="list-style-type: none">2.1 Select and check the serviceability of appropriate tools, equipment and personal protective equipment (PPE).2.2 Identify materials and components and calculate quantities.2.3 Check materials and components for conformity with delivery docket and report any inconsistencies.2.4 Carry out preparation of work area to support efficient service maintenance of automatic fire sprinklers.
3. Perform routine maintenance tasks.	<ul style="list-style-type: none">3.1 Isolate system interfaces.3.2 Apply maintenance tasks, following specifications detailed in maintenance schedule and AS 1851 Routine service of fire protection systems and equipment.3.3 Check mechanical equipment and system components using appropriate instruments.3.4 Identify faulty items or components and select appropriate service procedure.
4. Repair or replace faulty components and test job.	<ul style="list-style-type: none">4.1 Isolate system and drain down, as required, to complete tasks without causing water damage.4.2 Remove faulty items or components without damage to other components.4.3 Select replacement items or components to meet manufacturer's specifications.4.4 Adjust equipment or components as required.4.5 Recharge system with water.4.6 Carry out operational system check to ensure job specifications and quality

	requirements are met.
	4.7 Prepare maintenance report in appropriate format.
5. Clean up.	5.1 Clear the work area, and dispose of or recycle materials as applicable, following quality and work requirements and job specifications. 5.2 Clean, check, maintain and store tools and equipment following manufacturer's and workplace requirements.

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 CPCPFS3047A Test and maintain automatic fire sprinklers.

Links

Companion Volume Implementation Guide:

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

Assessment Requirements for CPCPFS3047

Test and maintain automatic fire sprinklers

Performance Evidence

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

- conducting routine service and maintenance up to five-year frequency of the following sprinkler systems:
 - wet system
 - deluge system
 - pre-action system, and applying the following tasks to all three systems:
 - replacing the seating rubber/diaphragm
 - replacing the face gasket/rubber
 - replacing any serviceable gaskets or rubbers on the drain and test valves
 - repacking an O, S & Y valve to manufacturer's specification
 - replacing all serviceable components on a gate valve
- performing the following on two different systems:
 - diagnose and repair faults
 - service relevant components as required
 - replace components as required
- performing system interfaces isolation of fire detection control indicating equipment (FDCIE) and fire pumpsets.

Knowledge Evidence

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

- documentation and reporting of defects and repairs in accordance with AS 1851 Routine service of fire protection systems and equipment
- characteristics, applications and limitations of approved materials and components, including:
 - alarm valves, wet, dry, deluge and pre-action
 - isolation valves, gate, butterfly and O, S & Y
 - drain and test valves
 - sluice valves
 - water motor alarms
 - pressure gauges
 - air compressors
 - air dryers

- o pressure switches
 - o flow switches
 - o jacking pumps
 - o fire Sprinkler heads
- AS 1851 Routine service of fire protection systems and equipment preventative maintenance requirements of sprinkler systems:
 - o valve overhauls
 - o sprinkler samples
 - o kitchen hood sprinklers
 - o duct sprinklers
 - o spray booth sprinklers
- how to access relevant information, including relevant job plans and specifications, codes, Australian Standards, manufacturer's specifications and jurisdictional requirements for conducting routine service maintenance of automatic fire sprinklers
- tools, materials and equipment used for conducting routine service maintenance of automatic fire sprinklers
- work health and safety (WHS) requirements for conducting routine service maintenance of automatic fire sprinklers.

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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