



Australian Government

CPCPFS3046 Test the integrity of water-based fire protection systems using pressure

Release: 2

CPCPFS3046 Test the integrity of water-based fire protection systems using pressure

Modification History

- Release 2 This version first released with CPC Construction, Plumbing and Services Training Package Release 5.1.
Performance 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 CPCPFS3046A Test the integrity of water-based fire protection systems using pressure. Updated to meet the Standards for Training Packages 2012.

Application

This unit of competency specifies the skills and knowledge required to test the integrity of water-based fire protection systems using pressure.

It includes performing water pressure testing on fire safety sprinkler and hydrant systems to establish the integrity of the water-based system or to identify and rectify leaks.

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

Pre-requisite Unit

CPCPCM2043 Carry out WHS requirements.

Unit Sector

Plumbing

Elements and Performance Criteria

Elements describe the essential outcomes.

Performance criteria describe what needs to be done to demonstrate achievement of the element.

- | | |
|------------------|---|
| 1 Plan the work. | 1.1 Obtain, read and apply water-based fire protection systems requirements from relevant job plans and specifications, codes, Australian Standards, manufacturer's specifications and jurisdictional requirements. |
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- 1.2 Identify and apply workplace policies and procedures, work health and safety (WHS) and environmental requirements.
 - 1.3 Identify materials and components and calculate quantities.
- 2 Prepare for work.
 - 2.1 Check material and components for conformity and action any discrepancies.
 - 2.2 Select and check serviceability of tools, equipment and personal protective equipment (PPE) and rectify or report any faults.
 - 2.3 Prepare work area to efficiently test fire protection system.
 - 2.4 Determine the type of test to be performed and prepare appropriate testing equipment.
- 3 Test fire protection systems.
 - 3.1 Connect air test equipment to system using pressure test not exceeding 50KPa.
 - 3.2 Connect water test equipment and conduct hydrostatic test according to relevant codes and Australian Standard.
 - 3.3 Record readings from each pressure gauge in format determined by job specifications and quality assurance requirements.
 - 3.4 Isolate water supply and open all water outlets to drain down system.
 - 3.5 Recharge and restore system to operational condition.
 - 3.6 Complete documentation and submit within required timeframe.
- 4 Clean up.
 - 4.1 Clear the work area, and dispose of, reuse or recycle materials in accordance with state and territory legislation and workplace policies and procedures.
 - 4.2 Clean tools and equipment, check for serviceability and

report any damage, and store and secure.

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 CPCPFS3046A Test the integrity of water-based fire protection systems using pressure.

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>

Assessment Requirements for CPCPFS3046 Test the integrity of water-based fire protection systems using pressure

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Performance Evidence

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

- testing the integrity of water-based fire protection systems:
 - one water pressure test on a fire sprinkler system
 - one water pressure test on a fire hydrant system.

Note: Tests may be conducted during installation or maintenance of jobs.

Knowledge Evidence

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

- legislation, regulations, standards and codes relating to pressure testing water-based fire protection systems:
- policies, procedures and environmental requirements and sustainability principles relating to pressure testing water-based fire protection systems
- functional and operational features of tools and equipment used in pressure testing water-based fire protection systems
- safety requirements when using compressed air
- processes, procedures and techniques of:
 - testing water-based fire protection systems
- characteristics, application and limitations of approve materials and components:
 - sprinkler heads
 - roll groove and threaded joints
 - steel pipe
 - chlorinated polyvinyl chloride (CPVC) pipe

- non-ferrous pipe
- alarm valves
- ball valves
- gate valves
- butterfly valves
- waste and test valves
- flexible droppers
- fire hydrant valves
- booster and suction arrangements
- check valves
- materials storage and environmentally responsible waste disposal relating to pressure testing water-based fire protection systems
- how to access relevant information including, job plans and specifications, codes, Australian Standards, manufacturer's specifications and jurisdictional requirements.
- tools, materials and equipment used for testing the integrity of water-based fire protection systems
- work health and safety (WHS) requirements for testing the integrity of water-based fire protection systems.

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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