

## Unit of Competency

### CPPFES2027 Inspect, test and maintain non-gaseous pre-engineered fire-suppression systems

#### Modification history

Release	Comments
1	Supersedes and is equivalent to CPPFES2027A Inspect, test and maintain non-gaseous pre-engineered fire-suppression systems. Unit updated to meet the Standards for Training Packages 2012. This version first released with CPP Property Services Training Package Release 13.0.

#### Application

This unit of competency specifies the skills and knowledge required to inspect, test and maintain pre-engineered foam, wet chemical, powder or water mist fire-suppression systems. Service activities are conducted according to the relevant Australian Standard and manufacturer requirements for the installed system.

The unit does not cover any installation, replacement, maintenance or repair functions that are restricted to licensed trades or occupations.

The unit is suitable for those with basic skills and knowledge undertaking routine work tasks under the direction of more experienced workers.

Licensing, legislative, regulatory or certification requirements apply to this unit of competency in some states and territories. For further information, check with the relevant regulatory authority.

#### Unit Sector

Fire Protection Inspection and Testing

#### Elements and Performance Criteria

1. Plan and prepare for service operation.	1.1 Read work instructions to clarify service timeframes, client needs, and site and equipment locations. 1.2 Discuss planned service procedures with relevant persons to clarify client needs and expectations. 1.3 Plan work activities to comply with relevant Australian Standards, regulatory, work health and safety (WHS) and workplace requirements. 1.4 Clarify system type and application, extinguishing agent and method of operation to identify potential and actual breaches of rules and regulations, and take required action to ensure compliance according to regulatory and workplace requirements. 1.5 Select and use required tools and equipment, including personal protective equipment (PPE). 1.6 Arrange access to worksite and communicate with responsible entity and affected persons to advise duration and impact of planned service procedures and to ensure alternative safety arrangements are implemented. 1.7 Identify and prepare to control hazards in the work area according to workplace requirements.
2. Inspect and survey	2.1 Locate and inspect fire-suppression system components

installed non-gaseous pre-engineered fire-suppression system.	<p>according to function and manufacturer requirements.</p> <p>2.2 Locate and inspect auxiliary shutdown devices of fire-suppression system or equipment interfaces and alarm devices forming part of the system.</p> <p>2.3 Identify and record changes to the system and protected space or its use that do not comply with the relevant Australian Standard or original installation requirements.</p>
3. Test installed non-gaseous pre-engineered fire-suppression system.	<p>3.1 Carry out system testing procedures according to the relevant maintenance schedule specified in Australian Standards and manufacturer requirements.</p> <p>3.2 Record test results and identified defects according to regulatory and workplace requirements.</p>
4. Maintain and repair installed non-gaseous pre-engineered fire-suppression system.	<p>4.1 Carry out system maintenance procedures according to the relevant maintenance schedule, manufacturer and workplace requirements.</p> <p>4.2 Report and repair or replace defective equipment or extinguishant according to manufacturer and workplace requirements.</p> <p>4.3 Record maintenance results and details of defective components according to regulatory and workplace requirements.</p>
5. Finalise service operation.	<p>5.1 Reinstall fire-suppression system as fully operational according to manufacturer requirements.</p> <p>5.2 Complete service documentation detailing outstanding defects and recommended rectifications according to Australian Standards, regulatory and workplace requirements.</p> <p>5.3 Check tools and equipment for faults, wear or damage and rectify or report problems according to workplace requirements.</p> <p>5.4 Leave client premises in a clean and tidy condition.</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 CPPFES2027A Inspect, test and maintain non-gaseous pre-engineered fire-suppression systems.

### Links

Companion Volume Implementation Guide:

<https://vetnet.education.gov.au/Pages/TrainingDocs.aspx?q=6f3f9672-30e8-4835-b348-205dfcf13d9b>

## Assessment Requirements for CPPFES2027 Inspect, test and maintain non-gaseous pre-engineered fire-suppression systems

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### Performance Evidence

To demonstrate competency, a candidate must meet the elements and performance criteria of this unit by:

- inspecting, testing and maintaining two non-gaseous pre-engineered fire-suppression systems installed in different locations and using different extinguishing agents
- completing the following maintenance activities for each system:
  - replacing the agent and recharging the system to operational condition
  - replacing one component within the extinguishing system with approved replacement componentry
  - replacing one component within the detection system with approved replacement componentry.

### Knowledge Evidence

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

- action to take when a breach of regulation, work health and safety (WHS) or other policy occurs when inspecting, testing and maintaining non-gaseous pre-engineered fire-suppression systems
- hazards and risks typically encountered when inspecting, testing and maintaining non-gaseous pre-engineered fire-suppression systems:
  - electrical
  - hazardous materials
  - moving parts
- implications of applying incorrect inspection, testing and maintenance procedures
- implications of not complying with safety, regulatory or manufacturer requirements when inspecting, testing and maintaining non-gaseous pre-engineered fire-suppression systems
- key features of legislation, regulations, codes and Australian Standards relevant to inspecting, testing and maintaining non-gaseous pre-engineered fire-suppression systems:
  - environmental protection
  - limitations of maintenance and repair functions that may be conducted by fire protection technicians
  - maintenance schedules
  - National Construction Code (NCC) and deemed-to-satisfy requirements
  - records and documentation

- procedures for inspecting, testing and maintaining non-gaseous pre-engineered fire-suppression systems to verify operation in line with manufacturer requirements
- purpose of fire-suppression system shutdown and isolation during maintenance
- types and purpose of non-gaseous pre-engineered fire-suppression systems
- types of extinguishing agents, their characteristics and use
- types and purpose of major components used in fixed installed non-gaseous pre-engineered fire-suppression systems:
  - o actuators: mechanical, pyrotechnic and solenoid
  - o agent discharge nozzles
  - o agent distribution pipework and hoses
  - o container valves
  - o control equipment
  - o detection devices
  - o extinguishing agent containers, such as tanks and cylinders
  - o support brackets
- types and purpose of tools and equipment used when inspecting, testing and maintaining non-gaseous pre-engineered fire-suppression systems:
  - o hand and power tools
  - o pressurising equipment
  - o personal protective equipment (PPE)
- workplace requirements for inspecting, testing and maintaining non-gaseous pre-engineered fire-suppression systems:
  - o maintenance of tools and equipment
  - o WHS, including hazard and risk identification and control.

### Assessment Conditions

Assessors must meet the requirements for assessors contained in the Standards for Registered Training Organisations.

Assessment must be conducted in the workplace or a simulated workplace using realistic conditions, materials, activities, responsibilities, procedures, safety requirements and environmental considerations.

Candidates must have access to documentation, tools, equipment, spare parts and installed fixed non-gaseous pre-engineered fire-suppression systems required to achieve the performance evidence.

### Links

Companion Volume Implementation Guide:

<https://vetnet.education.gov.au/Pages/TrainingDocs.aspx?q=6f3f9672-30e8-4835-b348-205dfcf13d9b>