

<b>Title</b>	<b>Inspect and test non-standard fixed fire protection systems</b>		
<b>Level</b>	<b>4</b>	<b>Credits</b>	<b>20</b>

<b>Purpose</b>	<p>This unit standard is for personnel employed in the fire protection industry and covers the inspection and testing of non-standard fire sprinkler systems.</p> <p>People credited with this unit standard are able to: prepare for inspections and tests of non-standard fixed fire protection systems; conduct routine tests of non-standard fixed fire protection systems; and complete documentation for reporting after inspections and tests of non -standard fixed fire protection systems.</p>
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<b>Classification</b>	Mechanical Engineering > Fixed Fire Protection Systems
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<b>Available grade</b>	Achieved
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### Guidance Information

- Legislation, regulations and/or industry standards relevant to this unit standard include but are not limited to the:

Building Act 2004,  
 Building (Forms) Regulations 2004,  
 Ministry of Business, Innovation and Employment (MBIE) *Acceptable Solutions (AS) and Verification Methods (VM)*,  
 MBIE New Zealand Building Code Handbook,  
 AS 1851:2012, *Routine service of fire protection systems equipment*,  
 National Fire Protection Association, NFPA 25:2023, *Standard for the inspection, testing, and maintenance of water-based fire protection systems*,  
 NZS 4541:2020, *Automatic fire sprinkler systems*.

Any new, amended or replacement Acts, regulations, standards, codes of practice, guidelines, or authority requirements or conditions affecting this unit standard will take precedence for assessment purposes, pending review of this unit standard.
- Definitions**

*Inspection* refers to an organised examination of characteristics of fire protection systems against established standards.

*Non-standard fixed fire protection systems* are those systems that have features that do not meet all the requirements of NZS 4541:2020, but that do however meet the specific fire problems for which they are designed.

*Plan* in this unit standard means the procedures developed to enable the work to be carried out in a logical and safe manner.

*Standards* refer to AS 1851:2012, NFPA 25:2023, and NZS 4541:2020.

*Systems documentation* refers to the documentation required to be maintained by NZS 4541:2020, including logbook, test reports, equipment details and drawings, specifications, contract agreement, additions and alterations, fire reports, building consents standards, codes of practice, installation instructions, test and commissioning procedures, and test and tests records.

*Tests* refer to the carrying out of operations, measurements, or functions to confirm correct function or performance of components and systems in accordance with NZS 4541:2020, and where applicable other accepted standards such as AS 1851:2012, NFPA 25:2023.

*Workplace procedures* refer to the documented procedures used by the organisation carrying out the work and applicable to the tasks being carried out. They may include but are not limited to – standard operating procedures, site safety procedures, equipment operating procedures, codes of practice, quality assurance procedures, housekeeping standards, charging of time and materials, management of drawings and documentation, procedures to comply with legislative and local body requirements.

### 3 Assessment information

- a. All activities must comply with relevant legislative and/or regulatory requirements and codes of practice.
- b. All activities demonstrate safe working practices.
- c. All activities must be completed and reported within agreed timeframes.
- d. Non-standard fixed fire protection systems include but are not limited to – dry pipe systems, pre-action systems, mist systems.
- e. All activities must be done in accordance with applicable plans, systems documentation, company procedures, and relevant sections of the appropriate standards.

### 4 Range

For assessment purposes, competence must be demonstrated on at least five systems.

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## Outcomes and performance criteria

### Outcome 1

Prepare for inspections and tests of non-standard fixed fire protection systems.

#### Performance criteria

- 1.1 Inspections and tests procedures for the systems are identified.
- 1.2 Safety requirements for inspections and tests of the systems are identified and referenced to the systems documentation.
- 1.3 Plans for inspections and tests of the systems are prepared.

### Outcome 2

Conduct routine tests of non-standard fixed fire protection systems.

**Performance criteria**

- 2.1 Inspections and tests are conducted.
- 2.2 All gauge and instrument readings recorded during routine testing are compared to the reference information supplied.
- 2.3 Safety requirements are complied with during the inspections and testing process.
- 2.4 Systems are restored to normal operating condition.

**Outcome 3**

Complete documentation for reporting after inspections and tests of non -standard fixed fire protection systems.

**Performance criteria**

- 3.1 Documentation for inspections and tests is completed, and distributed.

<b>Planned review date</b>	31 December 2029
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**Status information and last date for assessment for superseded versions**

Process	Version	Date	Last Date for Assessment
Registration	1	15 October 2015	31 December 2026
Review	2	27 June 2024	N/A

<b>Consent and Moderation Requirements (CMR) reference</b>	0013
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This CMR can be accessed at <http://www.nzqa.govt.nz/framework/search/index.do>.

**Comments on this unit standard**

Please contact the Hanga-Aro-Rau Manufacturing, Engineering and Logistics Workforce Development Council [qualifications@hangaarorau.nz](mailto:qualifications@hangaarorau.nz) if you wish to suggest changes to the content of this unit standard.