

<b>Title</b>	<b>Commission deluge and pre-action fire sprinkler 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 commissioning of deluge and pre-action fire sprinkler systems.</p> <p>People credited with this unit standard are able to: prepare for commissioning of deluge and pre-action fire sprinkler systems; commission deluge and pre-action fire sprinkler systems; complete commissioning documentation and inform relevant stakeholders for deluge and pre-action fire sprinkler 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,  
 NZS 4541:2020, *Automatic fire sprinkler systems*,  
 National Fire Protection Association, NFPA15:2022, *Standard for water spray fixed systems for fire protection*.

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**

*Commissioning* is the process by which the newly installed components and systems are tested to verify if it functions according to its design objectives and/or specifications and brought into operation.

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

*Systems documentation* refers to the documentation required to be maintained by NZS 4541:2020, including log book, 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 maintenance records.

*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 recognised codes of practice.
- b All activities must demonstrate safe working practices.
- c All activities must be completed and reported within agreed timeframes.
- d All activities must be done in accordance with applicable systems documentation and workplace procedures.

4 Range

For assessment purposes, competence must be demonstrated on commissioning of one deluge and one pre-action system.

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## Outcomes and performance criteria

### Outcome 1

Prepare for commissioning of deluge and pre-action fire sprinkler systems.

#### Performance criteria

- 1.1 Commissioning test requirements are identified.
- 1.2 Safety requirements for the systems are identified and related to systems documentation.
- 1.3 Installation records are analysed to establish conformance of systems with systems documentation.
- 1.4 Procedures for commissioning are prepared.

### Outcome 2

Commission deluge and pre-action fire sprinkler systems.

#### Performance criteria

- 2.1 Systems are verified as conforming to the systems documentation.
- 2.2 Functional tests are completed.
- 2.3 Systems are verified as being in normal operating conditions.
- 2.4 Safety requirements are complied with during commissioning.

- 2.5 Premises are cleared of all surplus introduced materials and equipment, and left in a clean and tidy condition.

### Outcome 3

Complete commissioning documentation and inform relevant stakeholders for deluge and pre-action fire sprinkler systems.

### Performance criteria

- 3.1 Commissioning records are completed and assembled.
- 3.2 Relevant stakeholders are informed of the systems' status, location, operational procedures, and maintenance requirements.
- 3.3 Commissioning records are distributed to the relevant stakeholders.

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<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.