

Title	Demonstrate knowledge of deluge and pre-action fire sprinkler systems and commissioning procedures		
Level	4	Credits	3

Purpose	<p>This unit standard is for personnel employed in the fire protection industry and covers the knowledge of operating principles of deluge and pre-action fire sprinkler systems and commissioning procedures.</p> <p>People credited with this unit standard are able to demonstrate knowledge of deluge and pre-action fire sprinkler systems and commissioning procedures.</p>
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Classification	Mechanical Engineering > Fixed Fire Protection Systems
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Available grade	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, NFPA 15:2022, *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.
Systems documentation refers to the documentation required to be maintained by NZS 4541:2020 including logbooks, test reports, equipment details and drawings, specifications, additions and alterations, contract agreement, fire reports, building consents, standards, codes of practice, test and commissioning procedures, and test and maintenance records.

3 Assessment information

Use of NZS 4541:2020 and NFPA 15:2022 by candidates during assessment is encouraged.

Outcomes and performance criteria

Outcome 1

Demonstrate knowledge of deluge and pre-action fire sprinkler systems and commissioning procedures.

Performance criteria

- 1.1 The principles of operation of deluge and pre-action fire sprinkler systems are explained in accordance with systems documentation.
- 1.2 Commissioning procedures for typical deluge and pre-action fire sprinkler systems are explained in accordance with systems documentation.

Planned review date	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

Consent and Moderation Requirements (CMR) reference	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 WDC qualifications@hangaarorau.nz if you wish to suggest changes to the content of this unit standard.