

Title	Demonstrate knowledge of routine testing and maintenance of fire sprinkler systems		
Level	3	Credits	6

Purpose	<p>This unit standard is for personnel employed in the fire protection industry and covers the knowledge of routine testing and maintenance of fire sprinkler systems and related non-standard systems.</p> <p>People credited with this unit standard are able to demonstrate knowledge of:</p> <ul style="list-style-type: none"> • requirements for maintaining fire sprinkler systems in compliance and good working order; • routine weekly tests and maintenance for fire sprinkler systems; • routine monthly tests and maintenance for fire sprinkler systems; • routine quarterly tests and maintenance for fire sprinkler systems; • routine yearly and four-yearly checks for fire sprinkler systems; • maintenance of non-standard sprinkler systems; <p>and describe:</p> <ul style="list-style-type: none"> • the process required to reinstate fire sprinkler systems to be operational on completion of routine tests and maintenance; • the documentation required for recording and reporting after routine tests and maintenance of fire sprinkler systems, and complete examples of each.
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Classification	Mechanical Engineering > Fixed Fire Protection Systems
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Available grade	Achieved
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Guidance Information

- 1 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,
 MBIE *Acceptable Solutions (AS) and Verification Methods (VM)*,
 Ministry of Business, Innovation and Employment (MBIE) New Zealand Building Code Handbook,
 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.

2 Definitions

Maintenance refers to the carrying out of preventive maintenance and repairs at specific intervals necessary to assure the continuing reliability of fire safety systems and equipment in accordance with relevant standards.

Systems documentation refers to the documentation required to be maintained by NZS 4541:2020 including logbook, test reports, equipment details and drawings, specifications, additions and alterations, contract agreement, 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

All activities must be done in accordance with applicable aspects of NZS 4541:2020, and applicable systems documentation, and workplace procedures.

4 Recommended skills and knowledge

Unit 17731, *Demonstrate knowledge of fire sprinkler systems and installation practices*, or demonstrate equivalent knowledge and skills.

Outcomes and performance criteria

Outcome 1

Demonstrate knowledge of requirements for maintaining fire sprinkler systems in compliance and good working order.

Performance criteria

- 1.1 Requirements for maintaining systems in compliance and good working order are identified.
- 1.2 Relationship between stakeholders and service provider is outlined.

Range	includes but is not limited to – Independent Qualified Person (IQP) and/or Building Warrant of Fitness Inspectors, New Zealand Fire Services, Territorial Authority, insurers.
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- 1.3 Recording and reporting procedures to be followed in the event of defects discovered during testing are outlined.

Outcome 2

Demonstrate knowledge of routine weekly tests and maintenance for fire sprinkler systems.

Performance criteria

- 2.1 Routine weekly tests and maintenance are identified.
- 2.2 Routine weekly tests and maintenance are explained.

Outcome 3

Demonstrate knowledge of routine monthly tests and maintenance for fire sprinkler systems.

Performance criteria

- 3.1 Routine monthly tests and maintenance are identified.
- 3.2 Routine monthly tests and maintenance are explained.

Outcome 4

Demonstrate knowledge of routine quarterly tests and maintenance for fire sprinkler systems.

Performance criteria

- 4.1 Routine quarterly tests and maintenance are identified.
- 4.2 Routine quarterly tests and maintenance are explained.

Outcome 5

Demonstrate knowledge of routine yearly and four-yearly checks for fire sprinkler systems.

Performance criteria

- 5.1 Routine yearly and four-yearly checks are identified.
- 5.2 Routine yearly and four-yearly checks are explained.

Outcome 6

Demonstrate knowledge of maintenance of non-standard sprinkler systems.

Performance criteria

- 6.1 Maintenance requirements for non-standard systems are identified.

Outcome 7

Describe the process required to reinstate fire sprinkler systems to be operational on completion of routine tests and maintenance.

Performance criteria

- 7.1 Process for reinstatement of systems after completion of routine tests and maintenance is described.

Outcome 8

Describe the documentation required for recording and reporting after routine tests and maintenance of fire sprinkler systems, and complete examples of each.

Performance criteria

- 8.1 Documentation required by NZS 4541:2020 and by typical testing companies is identified, and examples of each are completed.

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	31 December 2000	31 December 2017
Review	2	26 March 2007	31 December 2017
Revision	3	23 April 2008	31 December 2017
Review	4	15 October 2015	31 December 2026
Review	5	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 qualifications@hangaarorau.nz if you wish to suggest changes to the content of this unit standard.