

<b>Title</b>	<b>Demonstrate knowledge of routine testing and maintenance of fire sprinkler systems</b>		
<b>Level</b>	<b>3</b>	<b>Credits</b>	<b>6</b>

<b>Purpose</b>	<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, for fire sprinkler systems, able to: demonstrate knowledge of requirements for maintaining systems in compliance and good working order; demonstrate knowledge of routine weekly tests and maintenance; routine monthly tests and maintenance; demonstrate knowledge of routine quarterly tests and maintenance; routine yearly and four-yearly checks; demonstrate knowledge of maintenance of non-standard sprinkler systems; describe the process required to reinstate systems to be operational on completion of routine tests and maintenance; and describe the documentation required for reporting after routine tests, maintenance, and surveys, and complete examples of each.</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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<b>Entry information</b>	
<b>Recommended skills and knowledge</b>	Unit 17731, <i>Demonstrate knowledge of fire sprinkler systems and installation practices</i> , or demonstrate equivalent knowledge and skills.

### Explanatory notes

- 1 References  
 Building Act 2004  
 Ministry of Business, Innovation and Employment (MBIE) *Acceptable Solutions (AS) and Verification Methods (VM)*. Available at <http://www.dbh.govt.nz/AS/VM-documents>  
 New Zealand Building Code  
 NZS 4541:2013, *Automatic fire sprinkler systems*.
- 2 Definitions

*Enterprise 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.

*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 4541:2013 including log book, 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.

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## Outcomes and evidence requirements

### Outcome 1

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

#### Evidence requirements

- 1.1 Requirements for maintaining systems in compliance and good working order are identified in accordance with NZS 4541:2013.
- 1.2 Relationship between stakeholder and service provider is outlined.  
  
Range includes but is not limited to – Independent Qualified Person (IQP)/Building Warrant of Fitness Inspectors, New Zealand Fire Services, Territorial Authority, insurers.
- 1.3 Recording and reporting procedures to be followed in the event of defects discovered during testing are outlined in accordance with enterprise procedures.

### Outcome 2

Demonstrate knowledge of routine weekly tests and maintenance.

#### Evidence requirements

- 2.1 Routine weekly tests and maintenance are identified in accordance with NZS 4541:2013.
- 2.2 Routine weekly tests and maintenance are explained in accordance with NZS 4541:2013.

**Outcome 3**

Demonstrate knowledge of routine monthly tests and maintenance.

**Evidence requirements**

- 3.1 Routine monthly tests and maintenance are identified in accordance with NZS 4541:2013.
- 3.2 Routine monthly tests and maintenance are explained in accordance with NZS 4541:2013.

**Outcome 4**

Demonstrate knowledge of routine quarterly tests and maintenance.

**Evidence requirements**

- 4.1 Routine quarterly tests and maintenance are identified in accordance with NZS 4541:2013.
- 4.2 Routine quarterly tests and maintenance are explained in accordance with NZS 4541:2013.

**Outcome 5**

Demonstrate knowledge of routine yearly and four-yearly checks.

**Evidence requirements**

- 5.1 Routine yearly and four-yearly checks are identified in accordance with NZS 4541:2013.
- 5.2 Routine yearly and four-yearly checks are explained in accordance with NZS 4541:2013.

**Outcome 6**

Demonstrate knowledge of maintenance of non-standard sprinkler systems.

**Evidence requirements**

- 6.1 Maintenance requirements for non-standard systems are identified in accordance with NZS 4541:2013.

**Outcome 7**

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

**Evidence requirements**

- 7.1 Process for reinstatement of systems after completion of routine tests and maintenance is described in accordance with NZS 4541:2013, systems documentation, and enterprise procedures.

**Outcome 8**

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

**Evidence requirements**

- 8.1 Documentation required by NZS 4541:2013 and by typical testing companies is identified, and examples of each are completed in accordance with NZS 4541:2013, systems documentation, and enterprise procedures.

<b>Planned review date</b>	31 December 2020
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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	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>.

**Please note**

Providers must be granted consent to assess against standards (accredited) by NZQA, before they can report credits from assessment against unit standards or deliver courses of study leading to that assessment.

Industry Training Organisations must be granted consent to assess against standards by NZQA before they can register credits from assessment against unit standards.

Providers and Industry Training Organisations, which have been granted consent and which are assessing against unit standards must engage with the moderation system that applies to those standards.

Requirements for consent to assess and an outline of the moderation system that applies to this standard are outlined in the Consent and Moderation Requirements (CMRs). The CMR also includes useful information about special requirements for organisations wishing to develop education and training programmes, such as minimum qualifications for tutors and assessors, and special resource requirements.

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**Comments on this unit standard**

Please contact Competenz at [qualifications@competenz.org.nz](mailto:qualifications@competenz.org.nz) if you wish to suggest changes to the content of this unit standard.