

<b>Title</b>	<b>Demonstrate knowledge of passive fire protection</b>		
<b>Level</b>	<b>4</b>	<b>Credits</b>	<b>10</b>

<b>Purpose</b>	<p>This unit standard covers the underpinning knowledge for people who need to inspect passive fire protection (PFP) systems in buildings.</p> <p>People credited with this unit standard are able to demonstrate knowledge of: the compliance schedule regime; fire and smoke separation requirements, requirements for means of escape; inspection and maintenance requirements for passive fire safety systems; and explain fire compartmentation and escape routes.</p>
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<b>Classification</b>	Mechanical Engineering > Passive Fire Protection
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<b>Available grade</b>	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:
  - [New Zealand Building Code](#),
  - [Building \(Forms\) Regulations 2004](#),
  - [Health and Safety at Work Act 2015](#),
  - [MBIE Acceptable Solutions \(AS\) and Verification Methods \(VM\)](#),
  - C1-C6 Protection from Fire, Acceptable Solution C/AS1,
  - C Protection from Fire, Acceptable Solution C/AS2,
  - C/VM2, Verification Method: Framework for Fire Safety Design,
  - Ministry of Business, Innovation and Employment (MBIE) New Zealand Building Code Handbook. Available from: <https://www.building.govt.nz/>,
  - Ministry of Business, Innovation and Employment (MBIE). Compliance Schedule Handbook. Available from: <https://www.building.govt.nz/>.

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
  - Compliance Document* refers to relevant acceptable solution or verification method.
  - Fire Resistance Rating (FRR)* refers to the duration of time that a passive fire protection system can withstand a standard fire resistance test. It is a measure of the ability of a building component or assembly to resist the spread of fire and maintain its structural integrity for a specified period.

*Passive fire protection (PFP)* refers to components or systems of a building or structure that slows or impedes the spread of the effects of fire or smoke without system activation, and usually without movement. Examples of passive systems include floor-ceilings and roofs, fire doors, windows, and wall assemblies, fire-resistant coatings, and other fire and smoke control assemblies. Passive fire protection systems can include active components such as fire dampers.

*Specified systems* refer to the specific components or systems mentioned in the building code of compliance that have been explicitly defined, identified, or chosen for a particular purpose or application. In PFP for example they are means of escape from fire, safety barriers, access and facilities for use by persons with disabilities, handheld hose reels for fire-fighting, etc.

### 3 Assessment

Use of training manuals, reference texts and literature, manufacturers' data, and codes of practice and regulations listed in the references is encouraged during assessment.

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## Outcomes and performance criteria

### Outcome 1

Demonstrate knowledge of the compliance schedule regime.

#### Performance criteria

- 1.1 The purpose, content, and responsibility for issue of a building compliance schedule are explained in accordance with the Compliance Schedule Handbook.
- 1.2 The purpose, content, and responsibility for issue of a Building Warrant of Fitness are outlined in accordance with the Compliance Schedule Handbook.
- 1.3 The purpose, content, and responsibility for issue of a Certificate of Compliance with inspection, maintenance, and reporting procedures (Form 12A) are outlined in accordance with the Compliance Schedule Handbook.
- 1.4 The purpose, content, and responsibility for issue of compliance schedule reports are outlined in accordance with the Compliance Schedule Handbook.
- 1.5 The term specified system is explained in accordance with the Compliance Schedule Handbook.
- 1.6 The concepts of inspection and maintenance in the context of a compliance schedule are outlined in accordance with the Compliance Schedule Handbook.
- 1.7 The role of an Independent Qualified Person (IQP) is described in accordance with the Building Act.

### Outcome 2

Explain fire compartmentation and escape routes.

**Performance criteria**

- 2.1 The meaning of Fire Resistance Rating (FRR) is explained in relation to fire cells in accordance with the Compliance Document for the New Zealand Building Code.
- 2.2 The concept of fire cells is explained with reference to the FRR of its components, and in accordance with the Compliance Document for the New Zealand Building Code.
- 2.3 The concept of escape routes is explained with reference to open paths, protected paths, safe path, and final exit.

**Outcome 3**

Demonstrate knowledge of fire and smoke separation requirements.

**Performance criteria**

- 3.1 The requirements of fire separations are identified and described in accordance with the Compliance Document for the New Zealand Building Code.
- Range fire doors, walls, floors, roofs, ceilings, penetrations, concealed spaces.
- 3.2 The requirements of smoke separations are identified and described in accordance with the Compliance Document for the New Zealand Building Code.
- Range smoke control doors, smoke lobby, walls, penetrations, ceiling spaces, windows.

**Outcome 4**

Demonstrate knowledge of requirements for means of escape.

- 4.1 The requirements of escape routes and final exits are identified and described in accordance with the Compliance Document for the New Zealand Building Code.
- Range doors, gates, walls, windows, surface finishes, exit signs, ambient lighting, emergency lighting, obstructions, clearances.
- 4.2 The requirements of signs are identified and described in accordance with the Compliance Document for the New Zealand Building Code.
- Range escape routes, fire doors, smoke control doors, lifts, illumination.

**Outcome 5**

Demonstrate knowledge of inspection and maintenance requirements for passive fire safety systems.

## Performance criteria

5.1 The inspection and maintenance requirements of passive fire safety systems are explained in terms of how they are applied.

Range Specified Systems SS 15, items 15/2, 15/3, 15/4, and 15/5 as detailed in the Compliance Schedule Handbook; applications include but are not limited to – different building uses; evidence must include a minimum of two different building uses.

<b>Replacement information</b>	This unit standard replaced unit standard 17709 and unit standard 17710.
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<b>Planned review date</b>	31 December 2030
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### Status information and last date for assessment for superseded versions

Process	Version	Date	Last Date for Assessment
Registration	1	21 May 2010	31 December 2017
Review	2	15 October 2015	31 December 2026
Review	3	28 March 2024	31 December 2027
Review	4	26 March 2026	N/A

<b>Consent and Moderation Requirements (CMR) reference</b>	0014
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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 Manufacturing and Engineering Industry Skills Board [qualifications@maeisb.nz](mailto:qualifications@maeisb.nz) if you wish to suggest changes to the content of this unit standard.