

Title	Demonstrate knowledge of the fundamentals of passive fire protection systems		
Level	3	Credits	4

Purpose	<p>This unit standard covers the underpinning knowledge of passive fire protection (PFP) systems in buildings.</p> <p>People credited with this unit standard are able to demonstrate knowledge of: fire cells and Fire Resistance Ratings (FRR), PFP systems and associated products, smoke separation, standards and approvals required for PFP products, obligations and responsibilities when penetrating, altering, and/or disturbing PFP systems.</p>
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Classification	Mechanical Engineering > Passive Fire Protection
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Available grade	Achieved
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Guidance Information

1 Legislation and References

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](#),
[Ministry of Business, Innovation and Employment \(MBIE\) New Zealand Building Code Handbook](#),
[Ministry of Business, Innovation and Employment \(MBIE\). Compliance Schedule Handbook](#).

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 Definition

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.

Workplace procedures – 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 comply with – any policies, workplace procedures, business protocols, and requirements of the organisation/s involved, and ethical codes and standards of relevant professional bodies.

Outcomes and performance criteria

Outcome 1

Demonstrate knowledge of fire cells and Fire Resistance Ratings (FRR).

Performance criteria

- 1.1 Passive fire protection and its purpose is defined.
- 1.2 The meaning of FRR is explained in relation to fire cells in accordance with the New Zealand Building Code.
- 1.3 Fire cells are described in relation to the New Zealand Building Code and clauses C1 to C6.
- 1.4 Source of FRR information is explained.

Outcome 2

Demonstrate knowledge of PFP systems and associated products.

Performance criteria

- 2.1 The various components that collectively make up a PFP system that must be approved and tested as a complete system are stated.
- 2.2 The various passive fire products that form parts of a system that must be approved and tested as a complete system are stated.

Range includes but is not limited to – wraps, collars, windows, doors, sealants, mortar, surface finishes.
- 2.3 The limitations of products that form parts of a system are described.

Range includes but is not limited to – temporary solutions such as pillows.

Outcome 3

Demonstrate knowledge of smoke separation.

Performance criteria

3.1 Approved materials and products required to achieve a smoke separation as required by the Building Code are described.

Outcome 4

Demonstrate knowledge of standards and approvals required for PFP products.

Performance criteria

4.1 Sources of information for PFP product approvals are listed.

Range includes but is not limited to – NZ Building Code and recognised International Standards.

Outcome 5

Demonstrate knowledge of the obligations and responsibilities when penetrating, altering, and/or disturbing PFP systems.

Performance criteria

5.1 The FRR and/or smoke rating of the passive fire system are determined.

5.2 Approved products to use for reinstatement of FRR and/or smoke rating are identified.

5.3 Reporting, notifying, and documenting procedures are described according to the NZ Building Code.

Planned review date	31 December 2028
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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	28 March 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.