

Title	Conduct routine tests and inspections of special hazards fixed fire protection systems		
Level	4	Credits	10

Purpose	<p>This unit standard is for personnel employed in the fire protection industry and covers routine testing and inspections of special hazards fixed fire protection systems as part of maintenance.</p> <p>People credited with this unit standard are able to: prepare for routine tests and inspections of special hazards fixed fire protection systems; conduct routine tests and inspections of special hazards fixed fire protection systems; complete documentation for reporting after routine tests and inspections of special hazards fixed fire protection systems.</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

- 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,
 Ministry of Business, Innovation and Employment (MBIE) *Acceptable Solutions (AS) and Verification Methods (VM)*,
 MBIE New Zealand Building Code Handbook,
 AS 1851:2012, *Routine service of fire protection systems and equipment*,
 AS 4214:2018, *Gaseous fire extinguishing systems*,
 AS 4587:2020, *Water mist fire protection systems - System design, installation, and commissioning*,
 National Fire Protection Association, NFPA 15:2022, *Water spray fixed systems for fire protection*,
 NFPA 16:2019, *Installation of foam-water sprinkler and foam-water spray systems*,
 NFPA 17:2024, *Dry chemical extinguishing systems*,
 NFPA 17A:2021, *Wet chemical extinguishing systems*,
 NFPA 750:2023, *Water mist fire protection systems*,
 NFPA 2001:2022, *Clean agent fire extinguishing 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

Fixed fire protection system refers to engineered sets of components that work together to detect fires, alert occupants, and extinguish fires, and may include fixed or automatic systems, such as those described by the standards listed in the references, used for controlling or putting out fires.

Inspection refers to an organised examination of characteristics of fire protection systems against established standards.

Plan in this unit standard means the procedures developed to enable the work to be carried out in a logical and safe manner.

Special hazards fixed fire protection systems refer to systems designed and installed to AS 4214:2018, AS 4587:2020, NFPA 15:2022, NFPA 16:2019, NFPA 17:2024, NFPA 17A:2021, NFPA 750:2023, or NFPA 2001:2022 standards. They may include but are not limited to: carbon, inert gas; dry chemical; wet chemical; foam, foam-water, water mist; and explosion suppression types of systems.

Standards refer to AS 4214:2018, AS 4587:2020, NFPA 15:2022, NFPA 16:2019, NFPA 17:2024, NFPA 17A:2021, NFPA 750:2023, and NFPA 2001:2022.

Systems documentation refers to the documentation required to be maintained by the relevant special hazards fixed fire protection system standards, including logbook, test reports, equipment details and drawings, specifications, contract agreement, additions and alterations, fire reports, building consents standards, codes of practice, installation instructions, test and commissioning procedures, test and maintenance records.

Tests refer to the carrying out of operations, measurements, or functions to confirm correct function or performance of components and systems in accordance with the standards.

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

- a. All activities must comply with relevant legislative and/or regulatory requirements and recognised codes of practice.
- b. All activities must demonstrate safe working practices.
- c. All activities must be completed and reported within agreed timeframes.
- d. All activities must be done in accordance with applicable relevant standards, systems documentation, plans and workplace procedures.

4 Range

For assessment purposes, competence must be demonstrated on at least three systems.

5 Recommended skills and knowledge:

Unit 17729, *Demonstrate knowledge of maintenance, testing, inspections, and surveys of special hazards fixed fire protection systems*, or demonstrate equivalent knowledge and skills.

Outcomes and performance criteria

Outcome 1

Prepare for routine tests and inspections of special hazards fixed fire protection systems.

Performance criteria

- 1.1 The systems for routine tests and inspections are described.
- 1.2 Routine test and inspection procedures for the systems are identified.

Range weekly, monthly, quarterly, annually.
- 1.3 Safety requirements for the systems are identified and referenced to the systems documentation.
- 1.4 Plans for routine tests and inspections of the systems are prepared.

Outcome 2

Conduct routine tests and inspections of special hazards fixed fire protection systems.

Performance criteria

- 2.1 Routine tests and inspections are conducted and results are recorded.
- 2.2 Non-conformances are identified, recorded, and reported.
- 2.3 Safety requirements are complied with during the routine tests and inspections process.
- 2.4 Systems are restored to normal operating condition.
- 2.5 Premises are cleared of all surplus introduced materials and equipment and left in a clean and tidy condition.

Outcome 3

Complete documentation for reporting after routine tests and inspections of special hazards fixed fire protection systems.

Performance criteria

- 3.1 Systems faults and improvements are identified, and recorded.
- 3.2 Documentation for routine tests and inspections are completed, and distributed.
- 3.3 Personnel at site are notified of completion of tests and inspections.

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 qualifications@hangaarorau.nz if you wish to suggest changes to the content of this unit standard.