

Title	Conduct routine maintenance of special hazards fixed fire protection systems		
Level	4	Credits	5

Purpose	<p>This unit standard is for personnel employed in the fire protection industry and covers routine maintenance of special hazards fixed fire protection systems.</p> <p>People credited with this unit standard are, for special hazards fixed fire protection systems, able to: prepare for routine maintenance; conduct routine maintenance; and complete documentation for reporting after routine maintenance.</p>
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Classification	Mechanical Engineering > Fixed Fire Protection Systems
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Available grade	Achieved
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Entry information	
Recommended skills and knowledge	Unit 17729, <i>Demonstrate knowledge of maintenance of special hazards fixed fire protection systems</i> , or demonstrate equivalent knowledge and skills.

Explanatory notes

- 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
 - AS 4214:2006, *Gaseous fire extinguishing systems*
 - AS 4587:2003, *Water mist fire protection systems – System design, installation and commissioning*
 - NFPA 12:2011, *Carbon dioxide extinguishing systems*
 - NFPA 15:2012, *Water spray fixed systems for fire protection*
 - NFPA 16:2011, *Installation of foam-water sprinkler and foam-water spray systems*
 - NFPA 17:2013, *Dry chemical extinguishing systems*
 - NFPA 17A:2013, *Wet chemical extinguishing systems*
 - NFPA 750:2010, *Water mist fire protection systems*
 - NFPA 2001:2012, *Clean agent fire extinguishing systems*.
- 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.

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.

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.

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 4214:2006, AS 4587:2002, NFPA 12:2011, NFPA 15:2012, NFPA 16:2011, NFPA 17:2013, NFPA 17A:2013, NFPA 750:2010, or NFPA 2001:2012 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 4214:2006, AS 4587:2002, NFPA 12:2011, NFPA 15:2012, NFPA 16:2011, NFPA 17:2013, NFPA 17A:2013, NFPA 750:2010, and NFPA 2001.

Systems documentation refers to the documentation required to be maintained by the relevant special hazards fixed fire protection system standards, including log book, 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.

3 Range

- 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.

4 Assessment

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

Outcomes and evidence requirements

Outcome 1

Prepare for routine maintenance of special hazards fixed fire protection systems.

Evidence requirements

- 1.1 The systems for routine maintenance are described in accordance with systems documentation and enterprise procedures.

- 1.2 Routine maintenance procedures for the systems are identified in accordance with the relevant standards, systems documentation, and enterprise procedures.
- Range weekly, monthly, quarterly, four-yearly.
- 1.3 Safety requirements for the systems are identified and referenced to the systems documentation in accordance with enterprise procedures.
- 1.4 Plans for routine maintenance of the systems are prepared in accordance with systems documentation and enterprise procedures.

Outcome 2

Conduct routine maintenance of special hazards fixed fire protection systems.

Evidence requirements

- 2.1 Routine maintenance is conducted and results recorded in accordance with the systems documentation, plans, and enterprise procedures.
- 2.2 Non-conformances are identified, recorded, and reported in accordance with systems documentation and enterprise procedures.
- 2.3 Improvements to the systems are identified and recorded for inclusion into reports in accordance with systems documentation and enterprise procedures.
- 2.4 Safety requirements are complied with during the routine maintenance process in accordance with systems documentation and enterprise procedures.
- 2.5 Systems are restored to normal operating condition in accordance with systems documentation, plans, and enterprise procedures.
- 2.6 Premises are cleared of all surplus introduced materials and equipment and left in a clean and tidy condition in accordance with enterprise procedures.

Outcome 3

Complete documentation for reporting after routine maintenance of special hazards fixed fire protection systems.

Evidence requirements

- 3.1 Systems faults and improvements are identified, and recorded in accordance with systems documentation and enterprise procedures.
- 3.2 Documentation for routine maintenance are completed, and distributed in accordance with systems documentation, plans, and enterprise procedures.
- 3.3 Personnel at site are notified of completion of tests in accordance with plans and enterprise procedures.

Planned review date	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
Review	3	15 October 2015	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>.

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.

Comments on this unit standard

Please contact Competenz at qualifications@competenz.org.nz if you wish to suggest changes to the content of this unit standard.