

Title	Install deluge and pre-action fire sprinkler systems		
Level	4	Credits	20

Purpose	<p>This unit standard is for personnel employed in the fire protection industry and covers the installation of deluge and pre-action fire sprinkler systems.</p> <p>People credited with this unit standard are, for deluge and pre-action fire sprinkler systems, able to: plan and prepare for installation; receive, prepare, and install components; test installations and complete records.</p>
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Classification	Mechanical Engineering > Fixed Fire Protection Systems
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Available grade	Achieved
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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
 NZS 4541:2013, *Automatic fire sprinkler systems*.
- Definitions

As installed refers to the drawings and other relevant documentation giving details of the actual work completed on site.

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.

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

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 demonstrate safe working practices.
 - c All activities must be completed and reported within agreed timeframes.
 - d Systems requirements include but are not limited to extinguishant, extinguishant containers, control valves, isolating valves, pipe works, outlets, fixings, and seismic restraints.
- 4 Assessment
- For assessment purposes, competence must be demonstrated on installation of one deluge and one pre-action fire sprinkler system.

Outcomes and evidence requirements

Outcome 1

Plan and prepare for installation of deluge and pre-action fire sprinkler systems.

Evidence requirements

- 1.1 Deluge and pre-action fire sprinkler systems are identified and described in relation to the systems documentation, relevant standards, and enterprise procedures.
- 1.2 Systems documentation is located in accordance with enterprise procedures.
- 1.3 Installation requirements are checked against the physical site requirements in accordance with systems documentation and enterprise procedures.

Range access, site measurement, structural details, other services.
- 1.4 Plans for installations are prepared in accordance with systems documentation and enterprise procedures.
- 1.5 Components and materials are purchased or drawn from stock, and delivery to the sites is confirmed in accordance with enterprise procedures.

Outcome 2

Receive, prepare, and install components for deluge and pre-action fire sprinkler systems.

Evidence requirements

- 2.1 Components and materials are received and checked for conformance with systems documentation and in accordance with enterprise procedures.
- 2.2 Components and materials are prepared and set out in accordance with systems documentation and enterprise procedures.
- 2.3 Components are installed in accordance with systems documentation and enterprise procedures.

- 2.4 Safety requirements are complied with during installation of components in accordance with enterprise procedures.

Outcome 3

Test installations and complete records for deluge and pre-action fire sprinkler systems.

Evidence requirements

- 3.1 Installation tests are completed in accordance with systems documentation and enterprise procedures.
- 3.2 Test results are analysed and recorded, and corrective actions are taken in accordance with systems documentation and enterprise procedures.
- 3.3 As installed details of systems are recorded and distributed in accordance with systems documentation and enterprise procedures.
- 3.4 Safety requirements are complied with during testing of systems in accordance with enterprise procedures.
- 3.5 Premises are cleared of all surplus introduced materials and equipment and left in a clean and tidy condition in accordance with 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	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.