Title	**Fabricate and install pipe-work for fire sprinkler systems on site**		
Level	**3**	**Credits**	**20**

Purpose	This unit standard is for the personnel employed in the fire protection industry and covers the fabrication and installation of pipe-work for fire sprinkler systems on site. People credited with this unit standard are able to: plan and prepare for pipe-work fabrication and installation, and fabricate and install pipe-work for fire sprinkler systems on site.

Classification	Mechanical Engineering > Fixed Fire Protection Systems

Available grade	Achieved

Explanatory notes

1   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 4515:2009, *Fire sprinkler systems for residential occupancies*
NZS 4541:2013, *Automatic fire sprinkler systems.*

2   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.
Systems documentation refers to the documentation required to be maintained by NZS 4541:2013, 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, and 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 four
         systems and may include steel and plastic pipes.

Outcomes and evidence requirements

Outcome 1

Plan and prepare for pipe-work fabrication and installation for fire sprinkler systems on site.

Evidence requirements

1.1   Pipe-work fabrication and installation requirements are identified in accordance
         with the systems documentation and enterprise procedures.

1.2   Fabrication and installation requirements are checked against the physical site
         requirements in accordance with systems documentation and enterprise
         procedures.

         Range   may include but is not limited to – access, site measurement,
                      structural details, working at heights, other services.

1.3   Plans for fabrication and installation of pipes are prepared in accordance with
         customer requirements, systems documentation, and enterprise procedures.

1.4   Fabrication equipment is prepared and set up in accordance with enterprise
         procedures.

         Range   may include but is not limited to – pipe threading machine, roll
                      groove machine, pipe cutting equipment, hole saw machines.

1.5   Pipes and pipe fittings are purchased or drawn from stock, and delivery to the
         sites is confirmed in accordance with enterprise procedures.

Outcome 2

Fabricate and install pipe-work for fire sprinkler systems on site.

Evidence requirements

2.1   Safety requirements are complied with during fabrication and installation of pipe-
         work in accordance with enterprise procedures.

2.2   Pipes are cut and prepared in accordance with the plan, systems documentation,
         and enterprise procedures.

         Range   may include but is not limited to – pipe threading machine, roll
                      groove machine, pipe cutting equipment, hole saw machines.

2.3   Pipes are installed in accordance with the plans, systems documentation and
         enterprise procedures.

2.4　　　　Premises are cleared of all surplus introduced materials and equipment and left in a clean and tidy condition in accordance with enterprise procedures.

2.5　　　　Work documentation is completed in accordance with systems documentation and enterprise procedures.

Planned review date	31 December 2020

Status information and last date for assessment for superseded versions

Process	Version	Date	Last Date for Assessment
Registration	1	25 May 2001	31 December 2017
Review	2	26 March 2007	31 December 2017
Revision	3	23 April 2008	31 December 2017
Review	4	15 October 2015	N/A

Consent and Moderation Requirements (CMR) reference	0013

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.