

Title	Commission special hazards fire detection and alarm systems		
Level	4	Credits	20

Purpose	<p>This unit standard is for the training of fire alarm technicians, and covers commissioning of special hazards fire detection and alarm systems in accordance with standard NZS 4512:2010 and other relevant and accepted standards.</p> <p>People credited with this unit standard are, for special hazards fire detection and alarm system, able to: prepare for commissioning; conduct examination and tests; and complete documentation and handover.</p>
----------------	---

Classification	Mechanical Engineering > Fire Detection and Alarm Systems
-----------------------	---

Available grade	Achieved
------------------------	----------

Entry information	
Recommended skills and knowledge	<p>Unit 28816, <i>Demonstrate knowledge of special hazards fire detection and alarm systems and installation practices; and</i> 28817, <i>Demonstrate knowledge of commissioning tests and procedures for special hazards fire detection and alarm systems, or demonstrate equivalent knowledge and skills.</i></p>

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>
 Electricity Act 1992
 Electricity Regulations 1997
 New Zealand Building Code
 AS ISO 14520.1-2009, *Gaseous fire-extinguishing systems – Physical properties and system design*
 AS/NZS 3000:2007, *Electrical Installations* (known as the Australian/New Zealand Wiring Rules)
 NZS 4512:2010, *Fire Detection and Alarm Systems in Buildings*.

2 Definitions

Commissioning is the process by which the newly installed components and systems are tested to verify if it functions according to its design objectives and/or specifications and brought into operation.

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.

Equipment specifications refer to manufacturer's specifications for installation, operation, and performance of their equipment.

Fire detection and alarm system refers to an installation of apparatus, which performs specified fire related functions in response to the operation of a detector, manual call point, or other input. It includes manual call points, detectors, control and indication equipment, alerting devices, interconnections, fittings, labels, energy sources, and remote signalling devices and may include emergency warning and intercommunication systems (EWIS) where applicable.

Installation specifications refer to the specifications for all details of a particular installation. Typically this includes installation drawings, installation procedures, parts and cabling schedules, test and commissioning procedures, and verbal instructions.

Special hazards fire detection and alarm system refers to fire detection and alarm systems which apply electrical actuation to operate mechanical extinguishing systems. It includes water based, chemical, and clean agent gas flood installations.

Standards refer to AS ISO 14520.1-2009, NZS 4512:2010, and AS/NZS 3000:2007.

3 Range

- a All activities must comply with relevant legislative and/or regulatory requirements and recognised codes of practice.
- b All activities must be completed and reported within agreed timeframes.
- c All installation work must comply with the Building Code, and standards AS/NZS 3000:2007 and NZS 4512:2010.

4 Assessment

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

Outcomes and evidence requirements

Outcome 1

Plan and prepare for commissioning of special hazards fire detection and alarm systems.

Evidence requirements

- 1.1 Site access and timing of the commissioning works are agreed with site managers or customers in accordance with enterprise procedures.
- 1.2 Site occupational safety and health implications for self and others are identified and control measures put in place.

- 1.3 Installation specifications and documentation are reviewed to determine scope and detail of the commissioning works required, and to identify key personnel.
- 1.4 All equipment required for commissioning is identified and available in accordance with enterprise procedures

Outcome 2

Conduct examination and tests for special hazards fire detection and alarm systems.

Evidence requirements

- 2.1 Visual examinations are conducted in accordance with standards and enterprise procedures.
- 2.2 Tests on electrical equipment are conducted in accordance with standards and equipment specifications.
- 2.3 Operational tests are conducted in accordance with standards and equipment specifications; and any default system password changed.
- 2.4 Compliance with the Electricity Regulations 1997 is confirmed with authorised personnel in accordance with enterprise procedures.

Outcome 3

Complete documentation and handover.

Evidence requirements

- 3.1 Documentation is completed and assembled to comply with standards and enterprise procedures.
- 3.2 Site manager is advised of completion of commissioning.
- 3.3 Documentation is distributed to appropriate personnel in accordance with standards 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	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.