Title	**Inspect fire detection and alarm systems for compliance**
Level	**5**	**Credits**	**20**

Purpose	This unit standard is for the training of fire alarm technicians who wish to become inspection personnel required to inspect fire detection and alarm systems for compliance with standard NZS 4512:2021. Systems may use conventional or addressable devices, and include special hazards fire detection and alarm systems.
	People credited with this unit standard are able to: prepare for inspections of fire detection and alarm systems; inspect fire detection and alarm systems; and complete inspection documentation of fire detection and alarm systems.

Classification	Mechanical Engineering > Fire Detection and Alarm Systems

Available grade	Achieved

Guidance Information

1   Certification for compliance with NZS 4512:2021 may only be issued by accredited inspection bodies that have been independently accredited by an internationally recognised accreditation body to AS/NZS ISO/IEC 17020:2013, *Conformity assessment - Requirements for the operation of various types of bodies performing inspection*, as competent to inspect to NZS 4512:2021.

2   Legislation, regulations and/or industry standards relevant to this unit standard include but are not limited to the:
NZS 4512:2021, *Fire Detection and Alarm Systems in Buildings*.
Available at https://www.standards.govt.nz/
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.

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

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 NZS 4512:2021, and to standards relevant to special hazards systems where used.
Systems documentation refers to the documentation required to be maintained by NZS 4512:2021, including log book, test reports, equipment details and drawings, specifications, contract agreement, software configurations and versions, additions and alterations, fire reports, building consents standards, codes of practice, installation instructions, test and commissioning procedures, test and maintenance records.
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.   For assessment purposes, competence must be demonstrated on at least five different systems including at least one special hazards system and one addressable system.
      e.   All activities must be completed in accordance applicable with recognised inspection procedures, system documentation, and workplace procedures.

4   Range
      Competence must be demonstrated on systems defined by NZS 4512:2021.

5   Recommended skills and knowledge
      Unit 23258, *Demonstrate knowledge of fire detection and alarm systems and installation practices*, or demonstrate equivalent knowledge and skills.

Outcomes and performance criteria

Outcome 1

Prepare for inspections of fire detection and alarm systems.

Performance criteria

1.1   Scope and context for the inspections are established from systems documentation.

1.2   Site access and timing of the inspections are agreed with site managers or customers.

1.3   Site occupational safety and health implications for self and others are identified and control measures are put in place.

1.4   Systems documentation is assembled.

1.5   Inspection plans are prepared.

Outcome 2

Inspect fire detection and alarm systems.

Performance criteria

2.1   Systems are inspected to establish compliance with standards.

2.2   Customers are advised of non-complying items and arrangements are made for their rectification.

2.3   Systems are restored to operational status.

2.4   Site personnel are advised of system status and completion of inspection.

Outcome 3

Complete inspection documentation of fire detection and alarm systems.

Performance criteria

3.1   Inspection reports are prepared, sent to customers, and filed.

3.2   Details of inspections are entered in the system log.

3.3   Software versions and site specific configuration data are included in the report.

Replacement information	This unit standard replaced unit standard 17716, unit standard 17720, and unit standard 17726.

Planned review date	31 December 2029

Status information and last date for assessment for superseded versions

Process	Version	Date	Last Date for Assessment
Registration	1	27 October 2006	31 December 2017
Review	2	15 October 2015	31 December 2026
Review	3	27 June 2024	N/A

Consent and Moderation Requirements (CMR) reference	0013

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.