| Title | Check, test, and inspect fire detection and alarm systems | | |
|-------|-----------------------------------------------------------|-----------|----|
| Level | 4 | Credits | 20 |

| Purpose | This unit standard is for the training of fire alarm technicians, and covers monthly checking and testing and annual checking, testing, and inspection (surveys) of fire detection and alarm systems in accordance with standard NZS 4512:2021, Part 6. |
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| | People credited with this unit standard are able to prepare for and conduct checks, tests, and inspections of fire detection and alarm systems. |

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

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

| Prerequisites | Unit 23258, *Demonstrate knowledge of fire detection and alarm systems and installation practices*; and Unit 23259, *Demonstrate knowledge of checking and testing of fire detection and alarm systems*; or demonstrate equivalent knowledge and skills. |
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## Guidance Information

1    Legislation, regulations and/or industry standards relevant to this unit standard include but are not limited to the:
Ministry of Business, Innovation and Employment (MBIE) *Acceptable Solutions (AS) and Verification Methods (VM)*,
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.

2    Definitions
*Annual checks, tests, and inspections* are also referred to as annual surveys.
*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.

*Standards* refer to NZS 4512:2021.

*Systems documentation* refers to the documentation required to be maintained by NZS 4512:2021, including logbook, 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.

*Tests* refer to the carrying out of operations, measurements, or functions to confirm correct function or performance of components and systems in accordance with the standards.

*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.    Competence may be demonstrated on conventional or addressable systems or both.
   b.    All activities must comply with relevant legislative and/or regulatory requirements and recognised codes of practice.
   c.    All activities must demonstrate safe working practices.
   d.    All activities must be completed and reported within agreed timeframes.
   e.    All activities must be done in accordance with applicable plans, systems documentation, standards, building's compliance schedule and workplace procedures.

4    Range
   For assessment purposes, competence in monthly checks and tests must be demonstrated on at least five systems with at least one system using addressable devices; and competence in annual checks, tests, and inspection of two different systems, with at least one system using addressable devices is required.

## Outcomes and performance criteria

### Outcome 1

Prepare for checks, tests, and inspections of fire detection and alarm systems.

### Performance criteria

1.1    Site access and timing of the checks, tests, and inspections are agreed with site managers or customers.

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

1.3    Details of systems and scope of checks, tests, and inspections are identified from workplace records and systems documentation.

**Outcome 2**

Conduct checks, tests, and inspections of fire detection and alarm systems.

**Performance criteria**

2.1        Checks, tests, and inspections are conducted.

2.2        Reports are prepared, entered in the system log, and copies are sent to the customer.

2.3        Malfunctions or defects are reported and arrangements are made for their rectification.

2.4        Systems are restored to operational status.

2.5        Site personnel are advised of system status and test completion.

| **Replacement information** | This unit standard replaced unit standard 9394, unit standard 9396, unit standard 17717, and unit standard 17725. |
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| **Planned review date** | 31 December 2029 |
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**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.