National Certificate in Fire Detection and Alarm Systems (Level 4)

Level **4**

Credits **217**

This qualification has been **reviewed**. The last date to meet the requirements is 31 December 2020.

Transition Arrangements

This qualification has been reviewed and replaced by the New Zealand Certificate in Fire Detection and Alarm Systems (Level 4) [Ref: 2575].

For detailed information see Review Summaries on the NZQA website.

People working towards this qualification may complete the requirements of the qualification or transfer their results to the replacement New Zealand qualification.

The last date for enrolment into this reviewed qualification is 31 December 2017.

It is not intended that anyone be disadvantaged by this review, and the above transition arrangements have been designed for a smooth transition. However, anyone who feels that they have been disadvantaged may appeal to Competenz at the address below.

NZQF National Qualification Registration Information

Process	Version	Date	Last Date for Assessment
Registration	1	December 1998	December 2003
Review	2	June 2001	December 2008
Revision	3	July 2005	December 2010
Review	4	September 2007	December 2020
Republished	4	October 2013	December 2020
Review	5	March 2016	December 2020

Standard Setting Body

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National Certificate in Fire Detection and Alarm Systems (Level 4)

Level **4**

Credits **217**

Purpose

This qualification is for technicians in the fire protection industry, whose work involves installation and maintenance of fire detection and alarm systems. All standards listed are required.

The qualification covers skills and knowledge in the following areas:

- fire protection principles and industry knowledge;
- electrical principles and safety;
- electronic fault finding;
- installation, commissioning, and servicing of fire detection and alarm systems;
- first aid, resuscitation and safe working practices;
- literacy and numeracy skills;
- communications and report writing.

The qualification can typically be achieved in the course of a three to four-year traineeship or apprentice programme and may lead on to the National Diploma in Fire Protection Systems Technology (Certification of Fire Safety Systems) (Level 5) [Ref: 0867]. People who have completed the National Certificate in Fire Detection and Alarm Systems (Testing) (Level 3) [Ref: 0862] and wish to progress to installation work, will already have significant credits towards this qualification.

Credit Range

Level 1 credits	4
Level 2 credits	52
Level 3 credits	45
Level 4 or above credits	116
Total	217

Requirements for Award of Qualification

This qualification will be awarded to people who have met the following requirements.

- Compulsory standards

Award of NZQF National Qualifications

Credit gained for a standard may be used only once to meet the requirements of this qualification.

Unit standards and achievement standards that are equivalent in outcome are mutually exclusive for the purpose of award. The table of mutually exclusive standards is provided on the New Zealand Qualifications Authority (NZQA) website: http://www.nzqa.govt.nz/qualifications-standards/standards/standards-exclusion-list/.

Reviewed standards that continue to recognise the same overall outcome are registered as new versions and retain their identification number (ID). Any version of a standard with the same ID may be used to meet qualification requirements that list the ID and/or that specify the past or current classification of the standard.

Detailed Requirements

Compulsory

The following standards are required

Community and Social Services > Community and Workplace Fire and Emergency Management > Workplace Fire and Emergency Response

Id	Title	Level	Credit
3271	Suppress fire with hand extinguishers and fixed hose reels	2	1
4647	Explain principles of fire science	2	1

Engineering and Technology > Electrical Engineering > Core Electrical

Id	Title	Level	Credit
750	Demonstrate knowledge of electrical test instruments and take measurements	2	2
15843	Demonstrate knowledge of magnetism and electricity	2	15
15845	Draw and explain simple electrical diagrams	2	4
15846	Demonstrate knowledge of capacitors and semiconductor diodes	2	3
15847	Demonstrate knowledge of mathematics and mechanics for electrical trades	2	4
15848	Demonstrate knowledge of safeguards for use with portable electrical appliances	2	2
15849	Perform manual soldering and de-soldering procedures for electrotechnology work	2	2
15851	Demonstrate knowledge of electrical safety and safe working practices for electrical workers	2	3
15852	Isolate and test low-voltage electrical subcircuits	2	2
15861	Demonstrate knowledge of direct current (d.c.) power supplies	3	3
15862	Demonstrate knowledge of industrial process control	4	3
16407	Use and maintain hand and power tools for electrical work	3	4

Engineering and Technology > Electrical Engineering > Electrical Installation and Maintenance

Id	Title	Level	Credit
15871	Demonstrate knowledge of electrical installation in damp situations	4	3

Engineering and Technology > Electronic Engineering > Core Electronics

Id	Title	Level	Credit
5934	Prevent electrostatic damage to electronic components	2	1

Engineering and Technology > Electronic Engineering > Electronic Installation and Maintenance

Id	Title	Level	Credit
8191	Demonstrate systematic and logical fault finding techniques in electronic products or systems	3	6

Engineering and Technology > Mechanical Engineering > Fire Detection and Alarm Systems

Id	Title	Level	Credit
23258	Demonstrate knowledge of fire detection and alarm systems and installation practices	3	20
23259	Demonstrate knowledge of checking and testing of fire detection and alarm systems	3	8
23260	Install fire detection and alarm systems	4	30
23261	Commission fire detection and alarm systems	4	30
23265	Service fire detection and alarm systems	4	30
23267	Design fire detection and alarm systems	5	20

Engineering and Technology > Mechanical Engineering > Fire Protection Systems Technology

Id	Title	Level	Credit
17712	Demonstrate knowledge of organisations and documentation that impact on the fire protection industry	3	4

Health > Health Studies > Core Health

Id	Title	Level	Credit
6401	Provide first aid	2	1
6402	Provide resuscitation level 2	1	1

Health > Occupational Health and Safety > Occupational Health and Safety Practice

Id	Title	Level	Credit
497	Demonstrate knowledge of workplace health and safety requirements	1	3

Humanities > Communication Skills > Interpersonal Communications

Id	Title	Level	Credit
1277	Communicate information in a specified workplace	2	3
9677	Participate in a group/team which has an objective(s)	2	3

Humanities > Communication Skills > Writing

Id	Title	Level	Credit
3492	Write a short report	2	3

Service Sector > Service Sector Skills > Service Sector - Core Skills

Id	Title	Level	Credit
57	Provide customer service in given situations	2	2

Previous versions of the qualification

Version 4 was republished in order to include reverse transition arrangements (see section below) to ensure candidates would not be disadvantaged when expiring standards were no longer available

Version 4 was issued following a review by the Qualifications Advisory Group in December 2006 within the guidelines provided by the Sector Advisory Group.

Changes to structure and content included: titles, levels, and credits of reviewed standards updated; credit total increased from 203 to 217 credits; Elective section removed, making all unit standards compulsory; standards 56, 58, 1178, 1279, 1979, 2780, 3488, 3490, 3491, 3501, 4432, 4433, 5925, 5929, 6626, 7123, 8489, 8490, 9362, 10782, 10790, 10791, 10933-10940, 12349, 15854, and 16415 removed from qualification; standards 17718 and 17719 replaced by standard 23258; standards 18435 and 18436 replaced by standard 23260; standards 9386 and 9388 replaced by standard 23261; standard 9398 replaced by standard 23267; and standards 497, 8191, 23259, and 23265 introduced to the qualification.
This qualification contains standards that replace earlier standards. For the purposes of this qualification, people who have gained credit for the expiring standards are exempt from the requirement to gain credit for the replacement standards – see table below.

Credit for	Exempt from
741, 742, 744, 746, 747, 756	15843

Credit for	Exempt from
743, 745	15845
751	15846
1175, 5914	16407
1176, 5912	15847
1183	15848
5923	15849
1179	15851
1179	15852
1210	15861
2026	15862
2018	15871
2029	15871
9386, 9387, 9388, 9389	23261
9398	23267
17718, 17719	23258
18435, 18436	23260

Reverse transition

Reverse transition has been included for version 4 of this qualification to allow candidates to complete the qualification using either the expiring standards or replacement standards.

Version 4 of this qualification contains standards that will expire on 31 December 2013 (standard 8191) and 31 December 2014 (standard 15843) and have been replaced by later standards. For the purposes of this qualification, people who have gained credit for the replacement standards are exempt from the requirement to gain credit for the expiring standards – see table below.

Credit for	Exempt from
25070, 25071, 25072	15843
26727	8191

Version 3 was issued to remove the requirement for the Electrical Service Technician registration (EST-A).

Other standard setting bodies whose standards are included in the

qualification

Fire and Rescue Services Industry Training Organisation
NZQA
The Skills Organisation

Certification

This certificate will display the logos of NZQA, Competenz and the organisation that has been granted consent to assess against standards that meet the requirements of the qualification (accredited).

Classification

This qualification is classified according to the classification system listed on the Directory of Assessment Standards (DAS) and the New Zealand Standard Classification of Education (NZSCED) system as specified below.

DAS Classification		**NZSCED**	
Code	**Description**	**Code**	**Description**
1350	Engineering and Technology > Mechanical Engineering > Fire Detection and Alarm Systems	039905	Engineering and Related Technologies > Other Engineering and Related Technologies > Fire Technology and Rescue Services

Quality Management Systems
Providers and Industry Training Organisations must be granted consent to assess by a recognised Quality Assurance Body before they can register credits from assessment against standards. Organisation with consent to assess and Industry Training Organisations assessing against standards must engage with the moderation system that applies to those standards. Consent to assess requirements and the moderation system are outlined in the associated Consent and Moderation Requirements (CMR) for each standard.

Prerequisite Diagram