

National Certificate in Electrical Apparatus in Explosive Atmospheres (Level 4) with an optional strand in Electrical Inspector

Level 4

Credits 43 (or 45 with optional strand)

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

This qualification is replaced by the New Zealand Certificate in Electrical Equipment in Explosive Atmospheres (Level 4) with optional strands in Explosion-Protected Electrical Equipment Installation; Explosion-Protected Electrical Equipment Inspection; and Explosion-Protected Electrical Equipment in Underground Mines [Ref: 3614].

Transition Arrangements

The last date for entry into programmes leading to this qualification is 31 December 2018. The last date for assessment is 31 December 2020, at which time the qualification will be discontinued.

People currently working towards the replaced qualification may either complete the requirements by 31 December 2020 or transfer their results to the replacement qualification.

It is anticipated that no existing candidates will be disadvantaged by these transition arrangements. However, anyone who feels that they have been disadvantaged may appeal to The Skills Organisation at the address below:

For detailed information see [Review Summaries](#) on the NZQA website.

NZQF National Qualification Registration Information

Process	Version	Date	Last Date for Assessment
Registration	1	June 2011	31 December 2020
Review	2	February 2017	31 December 2020

Standard Setting Body

The Skills Organisation
 FREEPOST 5164
 PO Box 24469
 Royal Oak
 Auckland 1345
 Telephone 09 525 2590
 Email reviewcomments@skills.org.nz

National Certificate in Electrical Apparatus in Explosive Atmospheres (Level 4) with an optional strand in Electrical Inspector

Level 4

Credits 43 (or 45 with optional strand)

Purpose

This qualification is intended for electricians, industrial measurement and control technicians, electrical inspectors, and others who need to develop competency in working with electrical apparatus in explosive atmospheres. People who are awarded this qualification have the competency required to implement industry safety requirements specified in legislation and regulatory standards.

The qualification is made up of four sections. The Core Compulsory section includes standards which cover underpinning skills and knowledge which are essential for working in the explosive atmospheres environment. This section is designed to ensure that people awarded the qualification can demonstrate skills and knowledge related to:

- introductory and intermediate underpinning knowledge of electrical apparatus in explosive atmospheres
- reporting on the integrity of explosion-protected apparatus; and
- attending to breakdowns in explosive atmospheres.

Elective A allows people to choose from standards which cover skills and knowledge relevant to a range of roles in this working environment. If necessary, people can also select standards in Elective B which cover skills and knowledge related to the varied environments in which electrical apparatus suitable for installation in explosive atmospheres is operated.

The choice of standards in the electives ensures that the qualification is flexibility available to the various industries and disciplines working with electrical apparatus in explosive atmospheres. These standards cover skills and knowledge related to:

- installation;
- maintenance;
- testing;
- visual inspection;
- fundamental knowledge of gas detection;
- portable and fixed gas detection devices;
- repairing, testing, inspecting, and verifying compliance of cabling for underground mines;
- planning and designing installations;
- interpreting and testing gases in underground mining sites.

The Electrical Inspector Optional Strand allows registered electrical inspectors to gain recognition for competency to inspect electrical apparatus in explosive atmospheres. It includes one compulsory standard and two optional standards.

Candidates who complete this qualification may choose to work towards the National Certificate in Electrical Engineering (Advanced Trade) (Level 5) with strands in Electrotechnology Specialisation, Electrical Installation, and Industrial Electrical Engineering [Ref: 0951], or the National Diploma in Electrical Engineering (Advanced Trade) (Level 5) with strands in Electrotechnology Specialisation, Electrical Installation, and Industrial Electrical Engineering [Ref: 1514], or the National Certificate in Industrial Measurement and Control (Level 5) [Ref: 0976].

Special Notes

- 1 **Prerequisite**
Candidates wishing to undertake study towards this qualification must hold an appropriate current practising license or be a trainee holding a Trainee Limited License, as issued by the Electrical Workers Registration Board.
- 2 It is recommended that candidates have completed, or are working towards a New Zealand National Electrical Trade Certificate, Electricity Supply Certificate, or Industrial Measurement and Control Certificate.
- 3 Applications for Recognition of Prior Learning (RPL) or Recognition of Current Competency (RCC) should be made to the ElectroTechnology Industry Training Organisation (ETITO).

Credit Range

	Core Compulsory	Elective A	Elective B	Electrical Inspector Optional Strand
Level 3 credits	3	-	-	-
Level 4 credits	19	15	6	-
Level 5 or above credits	-	-	-	2-14
Minimum totals	22	15	-	2
Qualification total	43			45

Requirements for Award of Qualification

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.

Summary of Requirements

- A minimum of 43 credits
 - Of which a minimum of 40 credits at Level 4
- Core Compulsory standards
- Elective A – A minimum of 15 credits as specified
- Elective B – Balance

The following strands are optional

- Electrical Inspector Optional Strand

Detailed Requirements

Core Compulsory

The following standards are required

Engineering and Technology > Explosive Atmospheres > Electrical Apparatus in Explosive Atmospheres - Operations

ID	Title	Level	Credit
17054	Report on the integrity of explosion-protected electrical apparatus in explosive atmospheres	3	3
17059	Attend to breakdowns in explosive atmospheres	4	9
26739	Demonstrate introductory underpinning knowledge of electrical apparatus in explosive atmospheres	4	5
26740	Demonstrate and apply intermediate underpinning knowledge of electrical apparatus in explosive atmospheres	4	5

Elective A

A minimum of 15 credits

Engineering and Technology > Explosive Atmospheres > Electrical Apparatus in Explosive Atmospheres - Compliance

ID	Title	Level	Credit
17074	Conduct visual inspection of existing explosive atmospheres installations	4	2

Engineering and Technology > Explosive Atmospheres > Electrical Apparatus in Explosive Atmospheres - Operations

ID	Title	Level	Credit
17056	Install explosion-protected electrical apparatus and wiring systems in hazardous areas	4	9
17058	Maintain apparatus in explosive atmospheres	4	9
17073	Conduct testing of electrical apparatus in explosive atmospheres installations	4	4

ID	Title	Level	Credit
24976	Use and maintain the integrity of portable gas detection devices in hazardous areas	4	2
24977	Install fixed gas detection apparatus in hazardous areas	4	2
26741	Demonstrate underpinning knowledge of gas detection apparatus in explosive atmospheres	4	4
26742	Demonstrate underpinning knowledge of permanently-installed gas detection apparatus in explosive atmospheres	4	4
26743	Response check, calibrate, and maintain fixed gas detection apparatus in hazardous areas	4	1

Elective B

The balance of credits to achieve

A minimum of 43 credits

- Of which a minimum of 40 credits at Level 4

May come from the following

Engineering and Technology > Explosive Atmospheres > Electrical Apparatus in Explosive Atmospheres - Compliance

ID	Title	Level	Credit
24985	Verify compliance of repaired reeling, trailing, and flexible electrical cables	4	1

Engineering and Technology > Explosive Atmospheres > Electrical Apparatus in Explosive Atmospheres - Operations

ID	Title	Level	Credit
17071	Plan electrical installations for explosive atmospheres	5	8
17072	Design explosion-protected electrical systems and installations	6	12
24982	Repair reeling, trailing, and flexible electrical cables	4	2
24983	Test reeling, trailing, and flexible electrical cables	4	1
24984	Inspect and fit plugs/couplers for reeling, trailing, and flexible electrical cables	4	1

Engineering and Technology > Extractive Industries > Underground Extraction

ID	Title	Level	Credit
21281	Interpret and test for gases in an underground extraction site	4	15

Electrical Inspector Optional Strand

Meet the requirements of all of the following sets

- Electrical Inspector Optional Strand Compulsory
- Electrical Inspector Optional Strand Elective

Electrical Inspector Optional Strand Compulsory

The following standard is required

Engineering and Technology > Electrical Engineering > Electrical Equipment in Hazardous Areas

ID	Title	Level	Credit
17075	Inspect in detail electrical installations in hazardous areas	5	2

Electrical Inspector Optional Strand Elective

A minimum of 0 credits

Engineering and Technology > Electrical Engineering > Electrical Equipment in Hazardous Areas

ID	Title	Level	Credit
17068	Assess explosion-protected electrical equipment for conformance with standards	6	9

Engineering and Technology > Explosive Atmospheres > Electrical Apparatus in Explosive Atmospheres - Compliance

ID	Title	Level	Credit
17055	Manage compliance of hazardous areas	5	3

Other standard setting bodies whose standards are included in the qualification

NZ Extractive Industries Training Organisation

Certification

This certificate will display the logos of NZQA, the ElectroTechnology Industry Training Organisation, 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

DAS Classification		NZSCED	
Code	Description	Code	Description
449	Engineering and Technology > Explosive Atmospheres	031301	Engineering and Related Technologies >Electrical and Electronic Engineering and Technology >Electrical Engineering

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.

Reviewed

Prerequisite Diagram

