



Firetech Training Limited

Leaders in Fire Technology Training

Private Box 302-388
North Harbour
North Shore City 0751
Ph: 0-9- 414 4242
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National Certificate in Fire Protection Systems Technology (Inspection and Testing) (Level 4)



This qualification is for technicians in the fire protection industry, whose work involves inspection and testing fire safety 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.

VERSION: 2

CREDIT RANGE:

Level 1 credits	7
Level 2 credits	50
Level 3 credits	97
Level 4 or above	42
Total	196

STUDENT FEES:

*Please contact
Competenz on
0800 526 1800
to get the 2012 fees for
this course.*

DURATION: The qualification can typically be achieved in the course of a four year traineeship or apprentice programme or depending on your experience in the Fire Protection industry it is possible to finish the qualification sooner.

LOCATION: Distance Learning

FURTHER STUDY: This qualification is a good lead into the **National Diploma in Fire Protection Systems Technology (Certification of Fire Safety Systems) (Level 5)**

ENTRY REQUIREMENTS: Open

ADDITIONAL DOCUMENTATION: Applicants must supply certified copies of proof of identify (passport or birth certificate) and proof of residency (where appropriate).

Are you able to?

- Inspect and test conventional detection and alarm systems and conventional fixed fire protection systems?
- And are you able to specialise in the inspection and testing of analogue addressable detection and alarm systems, special hazard fixed fire protection systems, passive fire safety systems and control systems interlocked with detection and alarm systems?

**Then this is the
qualification for you!!**



Course Detail:

This is the order in how the assessments will be sent to the learner.

YEAR ONE:

Unit 497 - Demonstrate knowledge of workplace health and safety requirements.

Level: 1 Credit: 3

Purpose:

People credited with this unit standard are able to: identify and describe legislative rights and responsibilities for workplace health and safety; describe the systems approach to workplace health and safety; and explain how hazards are defined in the HSE Act.

Unit 4647 - Explain principles of fire science.

Level: 2 Credit: 1

Purpose:

People credited with this unit standard are able to demonstrate knowledge of the basic principles of the chemistry of fire, and demonstrate knowledge of the basic principles of the physics of fire.

Unit 57 - Provide customer service in given situations.

Level: 2 Credit: 2

Purpose:

This unit standard is for people entering or employed in the service sector who wish to build their customer service skills. People credited with this unit standard are able to: identify elements of good service in a given situation; provide customer service in a given situation; and respond to customer complaints in a given situation.

Unit 2780 - Demonstrate and apply knowledge of a personal computer system.

Level: 1 Credit: 3

Purpose:

People credited with this unit standard are able to: demonstrate knowledge of the hardware components of a personal computer system; demonstrate knowledge of the operation of the system and application software of a personal computer; operate a printer; complete basic operation and maintenance procedures for a personal computer system; and demonstrate knowledge of ergonomic principles for the safe operation of a personal computer system.

Unit 3271 - Suppress fire with hand extinguishers and fixed hose reels.

Level: 2 Credit: 1

Purpose:

People credited with this unit standard are able to demonstrate knowledge of the fire classes and fire suppression techniques, and select and implement a strategy to deal with fire.

Unit 3492 - Write a short report.

Level: 2 Credit: 3

Purpose:

People credited with this unit standard are able to write a short report.

Unit 9677 - Participate in groups and/or teams to gather ideas and information.

Level: 2 Credit: 3

Purpose:

People credited with this unit standard are able to contribute to ideas and information gathering, and contribute to group and/or team function.

Unit 1178 - Follow safe practices in an electrical workplace.

Level: 2 Credit: 3

Purpose:

People credited with this unit standard are able to: demonstrate knowledge of evacuation procedures; identify and report dangerous situations; use safety clothing and equipment; demonstrate knowledge of fire prevention and control procedures; maintain correct posture to avoid injury; demonstrate knowledge of hazardous substances and associated procedures; use ladders safely; employ the safety tag system; and recognise responsibilities for providing, maintaining, and using associated equipment for safety in electrical work.

Unit 750 - Demonstrate knowledge of electrical test instruments and take measurements.

Level: 2 Credit: 2

Purpose:

People credited with this unit standard are able to demonstrate knowledge of electrical test instruments, and take electrical measurements.



Unit 15843 - Demonstrate knowledge of magnetism and electricity.

Level: 2 Credit: 15

Purpose:

People credited with this unit standard are able to: demonstrate knowledge of electrical conductors, insulators, and semiconductors, resistance, resistivity, and resistors; compare calculated with measured values in resistive circuits; demonstrate knowledge of electrical power and energy; analyse resistive circuits; and demonstrate knowledge of electromotive force (e.m.f.) production, electrochemistry, magnets and magnetism, and direct current (d.c.) and alternating current (a.c.) generation.

Unit 15846 - Demonstrate knowledge of capacitors and semiconductor diodes.

Level: 2 Credit: 3

Purpose:

People credited with this unit standard are able to demonstrate knowledge of capacitors and semiconductor diodes; and test semiconductor diodes.

Unit 15851 - Demonstrate knowledge of electrical safety and safe working practices for electrical workers.

Level: 2 Credit: 3

Purpose:

People credited with this unit standard are able to: demonstrate knowledge of the hazardous nature of electricity, the Health and Safety in Employment Act, the safety management of electrical hazards, general safety practices in the workplace, special hazards, and safe use of tools and test equipment; and analyse electrical incidents.

Work Place Assessments:

Unit 21912- Apply safe working practices on an engineering worksite.

Level: 2 Credit: 2

Purpose:

People credited with this unit standard are able to apply safe working practices on an engineering worksite

Unit 15845 - Draw and explain simple electrical diagrams.

Level: 2 Credit: 4

Purpose:

People credited with this unit standard are able to: draw and explain simple electrical circuit diagrams; draw electrical location diagrams; draw single-line diagrams for electricity distribution; and draw a schematic circuit, block, and wiring diagrams from inspection of a given electrical product.

Unit 15847 - Demonstrate knowledge of mathematics and mechanics for electrical trades.

Level: 2 Credit: 4

Purpose:

People credited with this unit standard are able to demonstrate knowledge of: mathematics for electrical trades; mechanical terms and their units; and lever systems and mechanical drives.

Unit 15852 - Isolate and test low-voltage electrical subcircuits.

Level: 2 Credit: 2

Purpose:

People credited with this unit standard are able to isolate electrical circuits from the supply of electricity and test electrical circuits to ensure safety prior to reconnection.

Unit 21911- Demonstrate knowledge of safety on engineering worksites.

Level: 2 Credit: 1

Purpose:

People credited with this standard are able to demonstrate knowledge of hazards, personal safety, and safety procedures and equipment on engineering worksites.

Unit 6401 - Provide first aid & Unit 6402 - Provide resuscitation level 2, will be provided by your own preferred provider and the credits will be registered by them.

YEAR TWO:

Unit 15861 - Demonstrate knowledge of direct current (d.c.) power supplies.

Level: 3 Credit: 3

Purpose:

People credited with this unit standard are able to: demonstrate knowledge of d.c. power supply principles, d.c. power supply filters, voltage regulators, and a variable d.c. power supply; and take measurements on a regulated d.c. power supply and compare with expected values.

Unit 15862 - Demonstrate knowledge of industrial process control.

Level: 4 Credit: 3

Purpose:

People credited with this unit standard are able to demonstrate knowledge of common transducers, open-loop and closed-loop control, and control actions and three-term controllers.



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Unit 15871 - Demonstrate knowledge of electrical installation in damp situations.

Level: 4 Credit: 3

Purpose:

People credited with this unit standard are able to: recognise damp situations with respect to electrical equipment; and demonstrate knowledge of the Ingress Protection (IP) code, the zone system of classification in damp areas, and the requirements of current regulations and standards for installation in damp situations.

Unit 23258 - Demonstrate knowledge of fire detection and alarm systems and installation practices.

Level: 3 Credit: 20

Purpose:

People credited with this unit standard are able to, for fire detection and alarm systems, demonstrate knowledge of: legislation, standards, and codes; input and output devices; conventional control equipment; addressable systems; gas flood systems; wiring requirements and procedures; and commissioning tests and procedures.

Unit 17730 - Demonstrate knowledge of maintenance of fire sprinkler systems.

Level: 3 Credit: 4

Purpose:

People credited with this unit standard are, for fire sprinkler systems, able to demonstrate knowledge of: general requirements for maintaining systems in compliance and good working order; routine weekly tests and maintenance; routine monthly tests and maintenance; routine quarterly tests and maintenance; routine yearly and four-yearly checks; routine surveys; and to describe documentation required for reporting after routine tests, maintenance, and surveys and complete examples of each.

Work Place Assessments:

Unit 4231 - Conduct a compliance inspection.

Level: 4 Credit: 4

Purpose:

This unit standard is for people who work, or intend to work as compliance inspectors or enforcement officers. People credited with this unit standard are able to: contact client or client representative regarding a compliance inspection; observe compliance and non-compliance; test specific elements; record observations and conclusions; and provide feedback to client on results of compliance inspection.

Unit 17712 - Demonstrate knowledge of organisations and documentation that impact on the fire protection industry.

Level: 3 Credit: 4

Purpose:

People credited with this unit standard are able to demonstrate knowledge of organisations and documentation that impact on the fire protection industry.

Unit 23259 - Demonstrate knowledge of checking and testing of fire detection and alarm systems.

Level: 3 Credit: 8

Purpose:

People credited with this unit standard are able to demonstrate knowledge of: general requirements for maintaining systems in compliance and good working order; monthly checks and tests; and annual checks and tests.

Unit 17731 - Demonstrate knowledge of fire sprinkler systems and installation practices .

Level: 3 Credit: 10

Purpose:

People credited with this unit standard are able to demonstrate knowledge of: fire sprinkler systems; system components used for fire sprinkler systems; pipe-work installation procedures and requirements for fire sprinkler systems; site preparation and establishment for the installation of fire sprinkler systems.

Unit 17734 - Conduct routine tests and maintenance of fire sprinkler systems.

Level: 3 Credit: 4

Purpose:

People credited with this unit standard are, for fire sprinkler systems, able to: prepare for routine tests and maintenance; conduct routine tests and maintenance; and complete documentation for reporting after routine tests and maintenance.



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YEAR THREE:

Unit 17710 - Demonstrate knowledge of passive fire safety systems.

Level: 3 Credit: 4

Purpose:

People credited with this unit standard are, for passive fire safety systems, able to demonstrate knowledge of: firecells; fire resistance ratings; external wall and roof construction requirements; related installation and finishing requirements for their construction; and smoke control systems and techniques.

Unit 17714 - Demonstrate knowledge of inspection and testing of interconnected control and fire detection and alarm systems.

Level: 4 Credit: 4

Purpose:

People credited with this unit standard are, for interconnected control and fire alarm systems, able to: demonstrate knowledge of testing requirements and procedures; demonstrate knowledge of inspection requirements and procedures; identify and state the purpose of documentation required for inspection and testing; explain how to prepare for inspection and testing; and demonstrate knowledge of documentation required and complete documentation for reporting after the inspection and testing of interconnected control and fire alarm systems.

Unit 17713 - Demonstrate knowledge of interconnected control and fire detection and alarm systems.

Level: 4 Credit: 6

Purpose:

People credited with this unit standard are able to demonstrate knowledge of: sprinkler systems interconnected with fire detection and alarm systems; air handling and mechanical extraction systems interconnected with fire detection and alarm systems; and emergency power and lighting systems interconnected with fire detection and alarm systems.

Unit 17732 - Demonstrate knowledge of special hazards fixed fire protection systems.

Level: 4 Credit: 6

Purpose:

People credited with this unit standard are able to demonstrate knowledge of special hazards fixed fire protection systems.

Work Place Assessments:

Unit 23262 - Check and test fire detection and alarm systems.

Level: 3 Credit: 20

Purpose:

This unit standard is for the training of fire alarm technicians, and covers monthly testing and annual testing (surveys) of fire detection and alarm systems in accordance with standard NZS 4512:2003, Part 6. People credited with this unit standard are able to prepare for and conduct checks and tests.

YEAR FOUR:

Unit 17735 - Conduct routine surveys of fire sprinkler systems.

Level: 4 Credit: 4

Purpose:

People credited with this unit standard are, for fire sprinkler systems, able to: prepare for routine surveys; conduct routine surveys and thereafter reinstate the systems to operational status; and complete documentation for reporting after routine surveys.

Unit 17708 - Inspect and test interconnected control and fire detection and alarm systems.

Level: 4 Credit: 12

Purpose:

People credited with this unit standard are, for interconnected control and fire detection and alarm systems, able to: prepare for inspection and testing; inspect and test; and complete documentation for inspection and testing.

Unit 23263 - Check and test special hazard fire detection and alarm systems.

Level: 3 Credit: 20

Purpose:

This unit standard is for the training of fire alarm technicians and covers monthly testing and annual testing (surveys) of special hazard alarm systems in accordance with standard NZS 4512:2003 and standards relevant to special hazard systems. People credited with this unit standard are able to prepare for and conduct checks and tests.