

EEHA TRAINING/LEARNING STRUCTURE

To assist Registered Training Organisation (RTOs) in developing appropriate training and assessment strategies and activities for the National Electrotechnology Training Package, respective units of competency have been analysed and defined for delivery purposes. A nationally accepted and adopted industry recommended strategy for competency development (*The Electrotechnology Training Model - refer Electrotech Policies on website*) is used to enhance consistency and, directly support achievement of the units of competency.

The Industry preferred Training Model encompasses an on and off-the job approach, through the use of nationally approved modules that support the development of requisite underpinning essential knowledge and associated skills (other wise known as curriculum) are used in concert with work related modules. The work modules evaluate workplace development and the application of acquired essential knowledge and skills modules in the world of work. They have been developed to include the specific requirements that must be met in work and, are termed **Work performance** modules.

The sum total of these two components form the cornerstone from which a holistic assessment can be made by an Assessor of an individual’s demonstration of competence for a particular, or group of, unit(s) of competency.

In relation to each of the EEHA Units of Competency, the following Training and Learning Structure has been designed to assist in delivery and/or assessment and, is recommended:

Unit of Competency (Australia)/Unit Standard (New Zealand)	Competencies and modules required to achieve each Unit of Competency	
UTE NES010 B/17054 Report on the integrity of explosion-protected equipment in hazardous areas	Competencies General prerequisite Modules NUEH 001 NUEH 002 Part A NUEH 014 NHWP 014	Plant machinery operation or installation, maintenance or service function at AQF II level or higher Explosion-protection principles Explosion-protected equipment Explosion-protection visual checks Hazardous area operations reporting - <i>work performance</i>
UTE NES012 B/17059 Attend to breakdowns in hazardous areas	Competencies General prerequisite UTE NES010 B Modules NUEH 001 NUEH 002 Parts A to H NHWP 015	Attending-to-breakdowns in general electrical or instrumentation equipment at AQF Certificate III level or higher Report on the integrity of explosion-protected equipment in hazardous areas Explosion-protection principles Explosion-protected equipment Hazardous areas attend-to-breakdown - <i>work performance</i>

EE-Oz Training Standards

Unit of Competency (Australia)/Unit Standard (New Zealand)	Competencies and modules required to achieve each Unit of Competency	
UTE NES020 A Use and maintain the integrity of portable gas detection equipment	Competencies General prerequisite Modules NUEH 001 NUEH 015 NHWP 016	Plant or machinery operation or installation, maintenance or service function at AQF level III or higher Explosion-protection principles Gas detection—portable devices Portable gas detection work performance
UTE NES107 B/17056 Install explosion-protected equipment and wiring systems)	Competencies General prerequisite UTE NES010 B Modules NUEH 001 NUEH 002 Parts A to H NUEH 003 Parts A-B NHWP 001	Installation of general low-voltage or extra-low-voltage electrical/electronic equipment and wiring systems at AQF Certificate III level Report on the integrity of explosion- protected equipment in hazardous areas Explosion-protection principles Explosion-protected equipment Hazardous area installation and maintenance techniques Hazardous area installation - <i>work performance</i>
UTE NES116 B Install and maintain integrity of fixed gas detection equipment	Competencies General prerequisite UTE NES107 B or UTE NES214 B Modules NUEH 001 NUEH 002 Parts A to H NUEH 003 Parts A-B NUEH 016 NHWP 017	Install explosion-protected equipment and wiring systems Maintain equipment in hazardous areas Explosion-protection principles Explosion-protected equipment Hazardous area installation and maintenance techniques Gas detection—fixed equipment Fixed gas detection - <i>work performance</i>
UTE NES214 B/17058 Maintain equipment in hazardous areas)	Competencies General UTE NES010 B Modules	Maintenance of general low-voltage or extra-low-voltage electrical/electronic equipment and wiring systems at AQF Certificate III level Report on the integrity of explosion- protected equipment in hazardous areas

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Unit of Competency (Australia)/Unit Standard (New Zealand)	Competencies and modules required to achieve each Unit of Competency	
	NUEH 001 NUEH 002 Parts A to H NUEH 003 Parts A-B NHWP 002	Explosion-protection principles Explosion-protected equipment Hazardous area installation and maintenance techniques Hazardous area maintenance - <i>work performance</i>
UTE NES215 B/17060-66 Overhaul and repair explosion-protected equipment)	Competencies General Modules NUEH 001 NUEH 002 Parts A-H NUEH 005 Parts A-B NHWP 007	Overhaul and repair of general low- voltage or extra-low-voltage electrical/electronic equipment has been achieved at AQF Certificate III level Explosion-protection principles Explosion-protected equipment Explosion-protected equipment overhaul and repair Explosion-protected equipment overhaul and repair - <i>work performance</i>
UTE NES407 B/17068 Assess explosion- protected equipment for compliance with Standards)	Competencies General Modules NUEH 001 NUEH 002 Parts A-H NUEH 012 NHWP 009	Compliance assessment of general low- voltage or extra-low-voltage electrical/electronic equipment has been achieved at AQF Certificate IV level or higher Explosion-protection principles Explosion-protected equipment Explosion-protected equipment conformity assessment Explosion-protected conformity assessment - <i>work performance</i>
UTE NES408 B/17073 Test installations in hazardous areas)	Competencies UTE NES107 B or UTE NES214 B Modules NUEH 001 NUEH 002 Parts A-H NUEH 003 Parts A-B NUEH 013	Install explosion-protected equipment and wiring systems, or Maintain equipment in hazardous areas Explosion-protection principles Explosion-protected equipment Hazardous area installation and maintenance techniques Hazardous area installation testing

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Unit of Competency (Australia)/Unit Standard (New Zealand)	Competencies and modules required to achieve each Unit of Competency	
	NHWP 003	Hazardous area installation testing - <i>work performance</i>
UTE NES409 B/17074 Conduct close inspection of existing hazardous area installations)	<p>Competencies General</p> <p>or</p> <p>UTE NES012 B</p> <p>or</p> <p>UTE NES107 B</p> <p>or</p> <p>UTE NES214 B</p> <p>or</p> <p>UTE NES707 B</p> <p>Modules NUEH 001 NUEH 002 Parts A-H NUEH 003 Part A NUEH 009</p> <p>NHWP 004</p>	<p>General electrical installation inspection at AQF Certificate IV level or higher, or</p> <p>Attend to breakdowns in hazardous areas</p> <p>Install explosion-protected equipment and wiring systems, or</p> <p>Maintain equipment in hazardous areas, or</p> <p>Design electrical installations in hazardous areas</p> <p>Explosion-protection principles</p> <p>Explosion-protected equipment</p> <p>Hazardous area installation and maintenance techniques</p> <p>Hazardous area close inspection requirements</p> <p>Hazardous area close inspection - <i>work performance</i></p>
UTE NES410 B/17075 Conduct detailed inspections of hazardous areas installations)	<p>Competencies UTE NES409 B</p> <p>Modules NUEH 001 NUEH 002 Parts A-H NUEH 003 Part A NUEH 004</p> <p>NUEH 009</p> <p>NHWP 005</p>	<p>Inspect visually existing hazardous area installations</p> <p>Explosion-protection principles</p> <p>Explosion-protected equipment</p> <p>Hazardous area installation and maintenance techniques</p> <p>Hazardous area detailed inspection techniques</p> <p>Hazardous area close inspection requirements</p> <p>Hazardous area detail inspect - <i>work performance</i></p>
UTE NES609 B/17070 Develop & manage maint. programs for hazardous area electrical equipment)	<p>Competencies General</p>	<p>Developing and managing general plant maintenance programs at AQF Certificate IV level or higher, or</p>

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Unit of Competency (Australia)/Unit Standard (New Zealand)	Competencies and modules required to achieve each Unit of Competency	
	or UTE NES214 B Modules NUEH 001 NUEH 002 Parts A-H NUEH 003 Part A NUEH 010 NHWP 012	Maintain equipment in hazardous areas Explosion-protection principles Explosion-protected equipment Hazardous area installation and maintenance techniques Hazardous area management Hazardous area maintenance management - <i>work performance</i>
UTE NES610 B/17055 Ensure the safety of hazardous areas	Competencies General Modules NUEH 001 NUEH 010 NHWP 013	General plant management at AQF Certificate III level or higher Explosion-protection principles Hazardous area management Hazardous area management - <i>work performance</i>
UTE NES705 B/17067 Design and develop modifications to explosion-protected equipment)	Competencies General or UTE NES215 B Modules NUEH 001 NUEH 002 Parts A-H NUEH 005 NUEH 006 NHWP 008	Design and developing of general electrical equipment at AQF Certificate V level or higher, or Overhaul and repair explosion-protected equipment Explosion-protection principles Explosion-protected equipment Explosion-protected equipment overhaul and repair Explosion-protected equipment modification Explosion-protected equipment modification design - <i>work performance</i>
UTE NES706 B/17069 Classify hazardous areas	Competencies General Modules NUEH 001 NUEH 008 NHWP 010	Gathering and analysing technical data and using this data to assess risk at AQF Certificate VI level or higher Explosion-protection principles Hazardous area classification techniques Hazardous area classification - <i>work performance</i>

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Unit of Competency (Australia)/Unit Standard (New Zealand)	Competencies and modules required to achieve each Unit of Competency	
UTE NES707 B/17071 Design electrical installations in hazardous areas)	Competencies General or UTE NES107 B Modules NUEH 001 NUEH 002 Parts A-H NUEH 003 Parts A-B NUEH 007 NHWP 006	Planning/designing electrical installations at AQF Certificate IV level or higher, or Install explosion-protected equipment and wiring systems Explosion-protection principles Explosion-protected equipment Hazardous area installation and maintenance techniques Hazardous area installation design Hazardous area installation design - <i>work performance</i>
UTE NES708 B/17072 Design explosion-protected electrical systems)	Competencies General UTE NES707 B Modules NUEH 001 NUEH 002 Parts A-H NUEH 003 Part A NUEH 007 NUEH 011 NHWP 011	Designing general electrical systems and installations, at AQF Certificate VI level or higher Design electrical installations in hazardous areas Explosion-protection principles Explosion-protected equipment Hazardous area installation and maintenance techniques Hazardous area installation design Explosion-protected electrical system design Explosion-protected electrical system design - <i>work performance</i>
UTE NES711 A Design gas detection systems	Competence UTE NES708 B Modules NUEH 001 NUEH 002 Parts A-H NUEH 003 Part A NUEH 007 NUEH 017	Design explosion-protected electrical systems Explosion-protection principles Explosion-protected equipment Hazardous area installation and maintenance techniques Hazardous area installation design Evaluation and selection of gas detection equipment—portable and fixed

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Unit of Competency (Australia)/Unit Standard (New Zealand)	Competencies and modules required to achieve each Unit of Competency	
	NHWP 018	Design gas detection systems - <i>work performance</i>

Endorsement relates to the explosion-protection techniques in which competency has been demonstrated. The evidence for granting endorsements is obtained through the relevant work performance module. More than one endorsement for a unit may be achieved. An endorsement is designated by the following suffixes:

Unit endorsement	Explosion-protection technique
Ex 'd'	Flameproof
Ex 'e'	Increased safety
Ex 'n'	Non-sparking
Ex 'i'	Intrinsic safety
Ex 'p'	Pressurisation
Ex 'tD'	Dust-exclusion enclosures
Ex 'pD'	Pressurisation, dust
Ex 'mD'	Encapsulation, dust
Ex 'iD'	Intrinsic safety, dust

Other explosion-protection techniques such as encapsulation 'm', oil-immersion 'o', powder filling 'q', ventilation 'v' and special protection 's', may be relevant to a particular workplace.

Ex 'tD' is equivalent to 'DIP'.

The Units of Competency are designed to provide skills specifically related to hazardous areas that are additional to generic competencies for plant operation, installation, maintenance, overhaul, inspection, technical management or design.

Numbers of New Zealand Units vary in accordance with the respective endorsement.

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