

CONSTRUCTSAFE TIER 2 HEALTH AND SAFETY COMPETENCY TEST - REGISTERED ELECTRICIAN FRAMEWORK

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Table of contents

1. Introduction
- 1.1 Candidate minimum required knowledge
- 1.2 Test framework
- 1.3 Test summary
- 1.4 Additional components

Section 2 – Test framework

1. Planning
2. Pre Start
3. Moving equipment and materials to work
4. Site Work
5. Specialist skills
6. Close down
7. Handover

1. Introduction

This framework document sets the standard for the ConstructSafe Tier 2 health and safety competency assessment for registered electricians. It addresses health and safety competence, and not electrical competence that is addressed by EWRB, although there is some overlap.

This framework was sponsored by McConnell Dowell and CHASNZ; developed in collaboration with the Master Electricians, and ETCO; and supported by individuals and management from the following electrical companies – AMC, Aotea Auckland, Aotea Southern, Elite, Leck, Millars, Nind, OEC, Prolectrics, Property Services, Simpson, Singer, and Stones.

This framework is aimed at electricians one year after registration. The framework is also relevant to electrical engineers and electrical service technicians given their predominance within the industry, but is suitable for all registration classes of electricians.

This framework allows those who design and contribute to training to align with the ConstructSafe assessment. The intent is to make it easy for training content to meet the knowledge and aptitude requirements that candidates need to pass the test.

1.2 Candidate minimum required knowledge

Candidates undertaking a ConstructSafe Tier 2 Electricians assessment must have already passed the ConstructSafe Tier 1 Foundation assessment.

It is expected but not mandatory that candidates are registered electricians.

1.3 Test framework

The framework for the ConstructSafe Tier 2 Health and Safety Competency Assessment for Registered Electricians is outlined on the following pages and was created by representatives of industry.

1.4 Test summary

The test for this framework has 60 questions, which will cover all aspects of the framework.

To achieve this competency, a candidate must get 85% or more.

1.5 Additional components

Candidates are required to provide evidence of their current EWRB registration in order to sit the test.

Risk Area	Identified risk	Controls	Expected knowledge outcome (Candidate can...)	Learning outcome	
Planning	Undertaking work beyond workers legal competency.	Health and Safety at work Act 2015 - 207	Worker can relay the legal limitations placed on their competency as part of the act.	1.01	
		Electricity (Safety) Regulations 2010 (68, 71, Part 7, 100)	Worker can relay the Regulatory limitations placed on their competency.	1.02	
	Undertaking work beyond the limits of worker competency.	EWRB guidelines.	Worker can recognise the limits of their competency in line with EWRB guidelines.	2.01	
	Selection of inappropriate equipment for work activity.	AS/NZS 4836 : 2011 Section 5, Section 7	Worker can identify common electricians' tools and their applications.	3.01	
	Selection of equipment beyond worker capability.	AS/NZS 4836 : 2011 Section 5, Section 7	Worker can identify specialist tools and their applications.	4.01	
			Worker can identify their own competency to use specialist tools.	4.02	
	Unusual site procedures for working, or Worker does not understand company work process for site.	Worker recognises the need for specific site induction.	Can escalate any unusual requirements to supervisors and managers before attending work site.	5.01	
			Worker contributes to work safety plan.	Worker can identify unusual circumstances from usual work	6.01
				Workers understands the value of worker contribution to risk assessment	6.02
			Site process for high risk work or permit to work system.	Worker understands the limitations provided by a permit to work system.	7.01

			Worker can escalate and resolve unusual conditions prior to attending work area, including changes to weather, or work area conditions caused by environmental factors.	7.02
	Other works or workers in the work area.	Site sequencing plans, dynamic risk assessment by workers.	Worker can communicate site works plan prior to site attendance.	8.01
			Worker can communicate and relay the principles of risk assessment in a changed work environment.	8.02
Pre Start	Harm from work tools equipment.	Calibration of equipment.	Worker can identify the frequency and calibration limits of equipment.	9.01
		Pre use checks of equipment.	Worker can recognise damaged or defective equipment.	10.01
Moving equipment and materials to work	Transport of equipment and materials to work area harming workers.	Site traffic plans, site work plans, site lifting plans.	Worker can relay common requirements and controls of site plans.	11.01
	Manual Handling injuries.	Use of mechanical lifting aides, competency to undertake dynamic risk assessment.	Worker can identify the limits of their ability when handling large, heavy or misshapen loads.	12.01
			Worker can identify equipment to move materials around site.	12.02
		Worker demonstrates their limit of competency when using lifting aides.	12.03	

Site Work	Live works	Risk treatment control measures in line with AS/NZS 4836 : 2011 Section 3.	Worker can apply reasonable control measures.	13.01
			Worker can convey isolation methodology.	13.02
			Worker can explain and demonstrate fault finding or testing measures.	13.03
			Worker can explain testing of plug-in electrical equipment.	13.04
			Worker can explain and demonstrate the principles of work on exposed energised conductors or live conductive parts.	13.05
			Can explain the safety considerations when cutting cables or wiring enclosures.	13.06
			Workers can explain the safety considerations when removing out of service electrical equipment and cables.	13.07
			Workers can explain the safety control measures when leaving work unfinished.	13.08
			Worker can identify and explain risk controls when working in special, or unusual situations.	13.09
	Lone, isolated or remote working	Safety observers	Worker can explain the principles and purpose of safety observers during electrical works.	14.01
	Harm from defective or inappropriate tools or equipment	In use checks and general workers competency to recognise defects, or changed situations in line with AS/NZS 4836 : 2011 Section 5 (5.1, 5.2, 5.7)	Worker can identify damage to tools and equipment whilst working.	15.01

		Use of RCD protection	Worker can identify and demonstrate the principles, use and limitations of Residual Current Devices (RCD's).	16.01	
		Use of insulating barriers, covers and mats.	Worker can identify and demonstrate the principles, use and limitations of insulated barriers, covers and mats.	17.01	
	Working at height	Risk treatment control measures in line with AS/NZS 4836 : 2011 Section 5 (5.4, 5.5, 5.6).	Worker can identify and demonstrate the principles, use and limitations of ladders and step ladders.	18.01	
			Worker can identify and demonstrate the principles, use and limitations of Elevated Work Platforms (EWP's) and scaffolding.	18.02	
Specialist skills	Operating mobile elevated work platforms (EWP).	Competency assessment for plant operators.	Worker can identify the type and limits of EWP's common to electrical workers.	19.01	
			Worker can recognise the limits of their competency related to type of EWP.	19.02	
	Working in confined Spaces.	Permit to work system.	Worker can differentiate a confined space from a restricted space.	20.01	
			Worker can identify the requirement of a permit to work system.	20.02	
		Confined spaces competency standards.	Worker can identify the limits of their own competency to work in confined spaces.	21.01	
	Working around asbestos and other hazardous materials.	Site hazardous materials register.	Worker can identify and demonstrate the common controls and requirements of a site hazardous materials register.	22.01	

		Worker competency to identify hazardous materials and competency limits.	Worker can identify common hazardous materials applicable to electrical work across new and existing work areas.	23.01
			Worker can implement controls and escalate changed situations when uncovering unexpected hazardous materials in the work area.	23.02
		Worker competency to work with the presence of hazardous materials.	Worker is able to recognise the limits of their competency to undertake work around hazardous materials and identify requirements to be able to work safely.	24.01
Close Down	Re-energising work.	Section 4 of AS/NZS 4836 : 2011.	Worker can recite and implement the steps and order of re-energisation.	25.01
	Harm to other workers from housekeeping and returning the work area to original state.	Work safety plans, worker competency to identify poor housekeeping.	Worker can identify the key risks and reasonable controls needed to prevent harm to other workers from poor housekeeping.	26.01
Handover	Resulted work interaction with general public (residual risk).	Residual risk registers, handover certification.	Worker can identify and explain the purpose of handover materials to the client organisation.	27.01

