

NOCC-A21 Electrician: Competence Package

Relevant Occupation/trade title: Electrician			SAQA ID: 91761		
Learning Area 11: Install, maintain and troubleshoot low voltage <u>alternative power supply systems and associated equipment</u>			Total Hours:	64	
Learning Project 6: Install power supply systems for temporary installations (e.g. fairs, circus, fetes, voting stations, exhibitions, etc.)			Total Hours:	8	
Requisite learning areas/projects to be in place (Pre-requisite and co-requisite):		<ul style="list-style-type: none"> Phase 1 completed 			
Learning project description: The IEC has requested that you electrify a voting station in a tent located in Boboyi: Plan, wire, connect and test this temporary installation.					
Activity phase	Practical Skills Modules Content	Underpinning Knowledge Module Content	Work Experience Module Content (Exposure to be given)	Didactical-methodological advice	Learning materials/Tools and Equipment
Reference to QCTO Curriculum	PM-01 (PS-01, 02, 03) PM 03(PS01, 02, 03) PM-04 (PS 01, 02, 03) PM 05 (PS 01-06) PM 06 (PS1, 2)	KM-06-KT03 KM-07 (KT01,04, 05)	WM-01 (WE1-3) WM-02 (WE1-3) WM-03 (WE1-3)		
Planning/ Preparation	<p>Provide access to (Given): Site layout, circuit diagrams, electrical equipment for temporary supply, relevant tools and measuring instruments as per last column, statutory requirements;</p> <p>Apprentices must be able to do/perform the following (hard and soft) skills:</p> <ul style="list-style-type: none"> Wear correct PPE Read and interpret job instructions Conduct risk assessment Select the correct tools and equipment Transport all materials and equipment safely to workstation 	<p>Knowledge of:</p> <ul style="list-style-type: none"> SANS 10142 Section 7.8 Construction regulations Fundamentals of electricity Installing and wiring power supply for temporary installations Protective devices, circuit breakers, earth leakage relays, protective control switch gear 	<p>Under supervision: <i>If the workplace allows for this exposure:</i></p> <p>Install a power supply system for a temporary installation</p> <ul style="list-style-type: none"> Install and wire an electrical cabinet which includes all control and protective switch gear and socket outlets Install and connect mains to the electrical cabinet Conduct pre-commission inspection (power on and off) and test new installations 	Lecture, presentations DVDs, audio-visual Group/individual work Training models	<p>Print materials, electronic files, software applications incl.:</p> <ul style="list-style-type: none"> Training manuals for trainers and apprentices incl. multimedia software Set of presentation aids (videos, slides) for overhead or LED/LCD projectors SANS 10142 Section 7.8 <p>Tools, equipment and materials incl.:</p> <p>Electricians toolbox</p> <p>Materials</p> <ul style="list-style-type: none"> SANS 10142-8 Wiring code of practice. Construction regulations
Implementation/ Execution	<ul style="list-style-type: none"> Install and wire an electrical cabinet which includes all control and protective switch gear and socket outlets Install and connect mains to the electrical cabinet 				

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	<ul style="list-style-type: none"> Conduct pre-commission inspection (power on and off) and test new installations 				<p>Equipment</p> <ul style="list-style-type: none"> Multimeter Insulation tester Phase rotation meter Earth leakage tester Electrical cabinet Control and protective switch gear Socket outlets Earth leakages Circuit breakers Cables and accessories <p>PPE:</p> <ul style="list-style-type: none"> Safety overall Safety boots
Evaluation/ Documentation	<ul style="list-style-type: none"> Evaluates the correctness of the completed task according to drawings and/or instructions Report work progress to appropriate personnel Inspect and clean tools Store and secure tools and materials Complete applicable work documentation Perform housekeeping 				
Total	Hours: 8				
Specialisation additions	None				
Assessment guidance					
<ul style="list-style-type: none"> Self assessment Group assessment Theory test <p>Criteria for assessment:</p> <ul style="list-style-type: none"> Correct PPE is worn Risk assessment undertaken Task is completed as per job card Correct cable size used Over-current devices selected are at the correct rating Safety procedures are followed Correct documentation completed Housekeeping is performed 					