

NOCC-A21 Electrician: Competence Package

Relevant Occupation/trade title: Electrician				SAQA ID: 91761	
Learning Area 15: Commission, re- and decommission of electrical systems and equipment (compliance documentation)				Total Hours:	16
Learning Project 1: Commission, re-commission and decommission low voltage <u>single-phase</u> power distribution systems and associated components (incl. distribution boards, wiring, lighting, power outlets, space heating, water heating, fixed kitchen appliances....)				Total Hours:	8
Requisite learning areas/projects to be in place (Pre-requisite and co-requisite):		• Completed Phase 2			
Learning project description: Apprentices commission, re-commission and decommission low voltage <u>single phase</u> power distribution systems and associated components (incl. distribution boards, wiring, lighting, power outlets, space heating, water heating, fixed kitchen appliances....)					
Activity phase	Practical Skills Modules Content	Underpinning Knowledge Module Content	Work Experience Module Content	Didactical-methodological advice	Learning materials/Tools and Equipment
Reference to QCTO Curriculum	PM-06-PS01-02, PM07-PS01-03, PM08-PS01-05	KM05-KT03, KM07-KT01, KT05, KT06, KM09-KT01	WM-03-WE01-03, WM-04-WE01-03		
Planning/Preparation	<p><u>Provide access to (Given):</u> Pre-installed installation (single phase), electrical drawing, materials and equipment as identified in last column;</p> <p><u>Apprentices must be able to do/perform the following (hard and soft) skills:</u></p> <ul style="list-style-type: none">Read and interpret the electrical drawingPerform a risk assessment on the taskApply lock out proceduresSelect measuring instruments for commissioning testsAcquire relevant documentation	<p><u>Knowledge of:</u></p> <ul style="list-style-type: none">De-commissioning of single phase domestic installations (procedures and requirements)Relevant power off and power on testsCommissioning and re-commissioning of single phase domestic installations (procedures and requirements)Safety precautions when commissioning, re-commissioning and decommissioningSANS 10142-1For alternative power	<p><u>Under supervision:</u></p> <ul style="list-style-type: none">De-commission domestic installationsConduct relevant tests for commissioning and re-commissioningCommission and re-commission domestic installations	Lecture, presentations DVDs, audio-visual Demonstrations Practical applications	<p>Print materials, electronic files, software applications incl.:</p> <ul style="list-style-type: none">Training manuals for trainers and apprentices incl. multimedia softwareSet of presentation aids (videos, slides) for overhead or LED/LCD projectorsStatutory requirements:SANS 10142-Part1Municipal by-lawsCompany policiesElectrical drawings <p>Tools, equipment and materials incl.:</p> <ul style="list-style-type: none">Ladder/Step ladderElectrical hand tools standard

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	<ul style="list-style-type: none">Plan sequence of testingPerform all relevant power off testsRecord the result of each testIdentify and rectify faults if applicablePerform additional power off testPerform power on test and commission system	supplies (generators, PV panels): SANS 10142-1 Annexure S			toolbox <ul style="list-style-type: none">Measuring instruments Materials: <ul style="list-style-type: none">Pre-installed installation (single phase) – Mock domestic installation incl min.:<ul style="list-style-type: none">Distribution boards, wiring, lighting, socket outletsSpace heating, water heating, fixed kitchen appliancesAccess to appropriate spares in case of faults PPE: <ul style="list-style-type: none">Safety overallSafety bootsSafety glasses
Implementation/ Execution Repair	<ul style="list-style-type: none">Record required readings and findings of power off and power on testHand over documentation to relevant personClean work area after completion of task in accordance with work site procedures and housekeeping standards				
Evaluation/ Documentation/ Housekeeping					
Total	Hours: 8				
Specialisation additions					
Assessment guidance					
<ul style="list-style-type: none">Self assessmentGroup assessmentTheory test Criteria for assessment: <ul style="list-style-type: none">Correct isolation procedures (de-commissioning)Correct testing procedures and use of instruments (power off and power on)Identification and rectification of faultsDocumentation of readings and correct conclusions drawnCorrect procedures for hand over/commissioningClean worksite after completion of task and equipment returned safely to store					