



SOUTH AFRICAN QUALIFICATIONS AUTHORITY (SAQA)

In accordance with regulation 24(c) of the National Standards Bodies Regulations of **28 March 1998**, the Standards Generating Body (**SGB**) for

Electrical Engineering and Construction

Registered by Organising Field 12, Physical Planning and Construction, publishes the following qualification and unit standards for public comment.

This notice contains the titles, fields, sub-fields, **NQF** levels, credits, and purpose of the qualification and unit standards. The qualification and unit standards can be accessed **via** the **SAQA** web-site at www.saga.org.za. Copies may also be obtained from the Directorate for Standards Setting and Development at the **SAQA** offices, **Hatfield Forum West, 1067 Arcadia Street, Hatfield, Pretoria**.

Comment on the qualification and unit standards should reach **SAQA** at the address *below and no later than 78 May 2006*. All correspondence should be marked **Standards Setting – SGB for Electrical Engineering and Construction** and addressed to

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DIRECTOR STANDARDS SETTING AND DEVELOPMENT



SOUTH AFRICAN QUALIFICATIONS AUTHORITY

QUALIFICATION:

Further Education and Training Certificate: Construction and Maintenance of Overhead Track Equipment

SAQA QUALID		QUALIFICATION TITLE	
49774		Further Education and Training Certificate: Construction and Maintenance of Overhead	
SGB NAME		ORGANISING FIELD ID	PROVIDER NAME
SGB Electrical Engineering & Construction		12	
QUAL TYPE		ORGANISING FIELD DESCRIPTION	SUBFIELD
Further Ed and Training Cert		Physical Planning and Construction	Electrical Infrastructure Construction
ABET BAND	MINIMUM CREDITS	NQF LEVEL	QUALIFICATION CLASS
Undefined	154	Level 4	Regular-Unit Stds Based

PURPOSE AND RATIONALE OF THE QUALIFICATION

Purpose

The primary purpose of this qualification is to develop the required competencies in a learner for a career in OHTE.

Note: All "live" work on 3-kV DC OHTE is done while conductors are under tension (mechanical) with minimum disruption to the rail network service.

Qualified learners will be able to safely and independently:

- > Inspect, do fault finding, installation, repair and adjustment of OHTE under "live" and/or isolated and earthed conditions.
- > Understand and apply basic electrical and mechanical engineering principles and philosophies.
- > Work under isolated and earth conditions and to clearance from exposed "live" high-voltage electrical equipment (3kV DC, 25 kV and 50kV AC overhead traction equipment (OHTE) and all transmission lines and associated equipment) with a mechanised vehicle/on track machine.
- > Demonstrate knowledge and understanding of electrical systems and related concepts.
- > Utilise the fibre protection screen for self-protection when working live on 3-kV DC.
- > Obtain, issue and cancel work permits.
- > Communicate effectively verbally and in written form with relevant role-players (e.g. colleagues, managers, etc.) by compiling reports and reporting on status of OHTE.
- > Calculate quantities and distances correctly.
- > Perform calculations pertaining to quantities and distances.
- > Measure wire thickness and calculate and report on the life cycle.

The core and elective unit standards provide credits that allow the learner access to both vertically and horizontally articulated qualifications in the electrical engineering and construction field. The social status, productivity and employability of the qualifying learner within the electrical engineering and construction field will be enhanced, thereby contributing to the quality and skills required in this field. Learners are able to demonstrate occupational skills, which enable them to engage in life skills activities, creation of small businesses and health and environmental issues, through the critical cross-field component of the qualification.

The successful learner will be able to carry out the competencies in this qualification under both "live" and isolated or earthed conditions.

Rationale

- > Enabling the rendering of electrical continuity to the rail transport service.
- > Enabling the rendering of a rail transport service.
- > Contributing to economic growth.

RECOGNIZE PREVIOUS LEARNING?

Y

LEARNING ASSUMED TO BE IN PLACE

This qualification assumes that learners are competent in:

- > Communication at NQF Level 2.
- > Mathematical Literacy at NQF Level 2.

Recognition of Prior Learning

This qualification may be obtained in part or in whole through RPL. The learner should be thoroughly briefed on the mechanism to be used. Support and guidance should be provided to the learner. Care should be taken that the mechanism used provides the learner with an opportunity to demonstrate competence and is not so onerous as to prevent learners from taking up the RPL option towards gaining a qualification.

Access to the Qualification

Due to the safety requirements in the overhead track environment, learners must:

- > Not be colour blind.
- > Not be claustrophobic.
- > Be able to gauge distance.
- > Not suffer from acrophobia.

QUALIFICATION RULES

Level, credits and learning components assigned to this qualification:

The Fundamental, Core and Elective learning components that make up this qualification, are listed below.

Fundamental:

- > 36 credits at NQF Level 3.
- > Total credits 36.

Core:

- > 5 credits at NQF Level 2.
- > 56 credits at NQF Level 3.
- > 29 credits at NQF Level 4.
- > Total credits 90.

Elective:

- > 20 credits at NQF Level 2.
- > 6 credits at NQF Level 3.
- > Total credits 26.

Motivation for the number of credits assigned

Fundamental Credits:

> A minimum of 20 compulsory credits is allocated to Communication and 16 credits to Mathematical Literacy.

Core Credits:

> 90 credits have been allocated to the Core Unit Standards to cover the field of Removal, assembling, installation and maintenance of overhead track equipment.

Elective Credits:

> 26 credits have been allocated to the Elective Component of the qualification. 20 credits must be selected from this category.

In order to obtain the qualification, the learner needs to complete at least a total of 146 credits as stipulated above.

EXIT LEVEL OUTCOMES

The learner must achieve the following exit level outcomes under isolated and earthed conditions whilst under supervision.

(Note: Dead: can be defined as isolated and earthed conditions).

1. Plan and prepare installation and preventive maintenance on overhead track equipment under isolated and earthed conditions.
2. Install and maintain overhead track equipment according to overhead track equipment specifications, company-specific instructions and manufacturer's specifications under isolated and earthed conditions whilst under supervision.
3. Finalise the installation and maintenance on overhead track equipment according to company-specific instructions under isolated and earthed conditions whilst under supervision.
4. Demonstrate verbal and written communication skills.
5. Demonstrate an understanding of the electrical environment in the rail sector

ASSOCIATED ASSESSMENT CRITERIA

1.

- > Relevant documentation is evaluated and interpreted during the installation of and preventative maintenance on overhead track equipment.
- > Correct resources and material are procured after evaluating and interpreting relevant documentation. Range: This includes but is not limited to required personnel, transport, tools and lifting equipment.
- > Problems regarding the correctness, quantity and quality of materials, parts and components as measured against quantities needed and material specifications are solved, to remove, assemble, replace/install and maintain work on overhead track equipment, effectively under isolated and earthed conditions.

2.

- > Installation, maintenance and quality checks on overhead track equipment are performed safely and correctly as per overhead track equipment specifications, company-specific instructions and manufacturer's specifications under isolated and earthed conditions whilst under supervision.
- > Problems regarding the suitability and functionality of equipment and tools are solved effectively by demonstrating the knowledge required for identifying sub-standards and by being able to improvise within acceptable overhead track practices.
- > Resources are utilised and tasks are executed safely and responsibly while working on OHTE.
- > The use and function of the equipment being installed in relation to the overhead track system are explained in terms of overhead track practices and philosophies.

3

- > Tools, equipment and material are removed safely and correctly according to company-specific instructions.
- > Problems regarding the finalisation of the installation and maintenance of OHTE under isolated and earthed conditions are solved effectively by demonstrating the knowledge required for identifying sub-standards and by being able to improvise within acceptable overhead track practices.
- > Tools, equipment and material are cleaned and stored according to company specific house keeping rules.

4.

- > Information is presented timeously in the required format and to the appropriate parties as stipulated in company specific policies and procedures.
- > Relevant communication media and protocol are used while performing tasks.
- > Verbal communication is clear and concise.
- > Documentation relating to the task is completed in recognisable writing and as per company-specific instructions.
- > Procedures for reporting and recording of potential hazards are followed in terms of company specific policies and procedures.

5.

- > Safe work procedures and instructions for working safely in the vicinity of or near high-voltage electrical systems are explained and applied in terms of safety work procedures.
- > The traction return rail circuits are explained using practical examples.
- > Interrelatedness of systems within the rail sector and the importance of applying the electrical safety instructions in an electrical environment are explained in the context of rail sector environment.
- > Sub-standard conditions relating to high-voltage overhead track equipment are identified and reported in accordance with company -specific instructions.

Integrated Assessment

Because assessment practices must be open, transparent, fair, valid, and reliable and ensure that no learner is disadvantaged in any way whatsoever, an integrated assessment approach is incorporated into the Qualification.

Learning, teaching and assessment are inextricably linked. Whenever possible, the assessment of knowledge, skills, attitudes and values shown in the Unit Standards should be integrated.

Assessment of the communication, language, literacy and numeracy should be conducted in conjunction with other aspects and should use authentic **OHTE** contexts wherever possible.

A variety of methods must be used in assessment and tools and activities must be appropriate to the context in which the learner is working. Where it is not possible to assess the learner in the workplace or on-the-job, simulations, case studies, role-plays and other similar techniques should be used to provide a context appropriate to the assessment.

The term 'Integrated Assessment' implies that theoretical and practical components should be assessed together. During integrated assessments the assessor should make use of formative and summative assessment methods and assess combinations of practical, applied, foundational and reflective competencies.

Assessors and moderators should make use of a range of formative and summative assessment methods. Assessors should assess and give credit for the evidence of learning that has already been acquired through formal, informal and non-formal learning and work experience.

Assessment should ensure that all specific outcomes, embedded knowledge and critical cross-field outcomes are evaluated. The assessment of the critical cross-field outcomes should be integrated with the assessment of specific outcomes and embedded knowledge.

INTERNATIONAL COMPARABILITY

International comparability was done with qualifications offered in countries that have extensive electrical rail systems using similar voltages to South Africa.

United Kingdom:

The National Certificate in Overhead Track Equipment has been benchmarked against the corresponding Qualifications on the Qualification Framework in the United Kingdom. The following emanated from the benchmarking process:

Title of corresponding Qualifications:
NVQ in Rail Transport Engineering Maintenance, Levels 3.

Differences with South African Qualification:

The **UK** Qualification incorporates the different railway engineering disciplines into one Qualification, i.e. a generic core with different streams representing the various disciplines, such as Signal Maintenance, Signal Faulting, Communications, Permanent way, Electrification, Traction & Rolling stock and Plant. In the South African model, each of the railway engineering disciplines are reflected in separate, specialised Qualifications. e.g. cable joining, repairing lengths of cable and connecting them to overhead lines, repair overhead equipment, etc.

Similarities with South African Qualification:

There are many similarities with regard to the individual units or competencies included in this Qualification.

These include competencies relating to:

- > Establishing and maintaining protection.
- > Health & Safety.
- > Implement safe systems for work on or near electrification and plant assets.
- > Coordinating activities with others.
- > Contributing to improving the organisation's working practices.
- > Plan requirements for safe access to work on or near electrification and plant assets.
- > Planning activities and preparing resources.
- > Reinstating the work area upon completion of activities.

New Zealand:

The National Certificate in Overhead Track Equipment has been benchmarked against the corresponding Qualification and individual Unit Standards registered by the New Zealand Qualifications Authority. The following emanated from the benchmarking process:

Title of corresponding Qualifications:

National Certificate in Electrical Engineering level 3.

Differences with South African Qualification:

The aim of the New Zealand Qualification is to provide recognition for a learner wishing to pursue employment and further training in the electrical and related industries. The South Africa qualification in Overhead Track Equipment, Level 3 focuses more or less on the same topics, with the exception on work to clearance from "live overhead track equipment and work in the vicinity of or near "live" overhead track equipment.

Similarities with South African Qualification:

There are many similarities with regard to the individual unit standards or competencies included in this Qualification.

- > Fundamental competencies, i.e. Communication & Mathematics.
- > Health & Safety.
- > Power and hand tools.
- > Principles of electricity.
- > Demonstrate the knowledge of safe working in an electrical environment.
- > Demonstrate knowledge of electricity.
- > Fault finding, repair and installation of electrical equipment.

Scotland:

The National Certificate in Overhead Track Equipment has been benchmarked against the Corresponding Qualifications on the Qualification Framework in Scotland. The following emanated from the benchmarking process:

Title of corresponding Qualifications:

City & Guilds, Level 3, NQF in Railway Engineering (Unit y/102/6887: Unit 220)

Differences with South African Qualification:

The Scottish Qualification incorporates the different railway engineering disciplines into one Qualification, i.e. a generic core with different streams representing the various disciplines, such as Signal Maintenance, Signal Faulting, Communications, Permanentway, Electrification, Traction & Rolling stock and Plant. In the South African model, each of the railway engineering disciplines is reflected in separate, specialized Qualifications.

Similarities with South African Qualification:

There are many similarities with regard to the individual unit standards or competencies included in this Qualification. (Unit 220)

Individual Unit Standards registered, which correlate with some of the South African Unit Standards, include.

- > Work within approved procedures and specifications.
- > Support health and safety practices in the workplace.
- > Prepare work sites and materials for electrification.
- > Coordinating activities with others.
- > Contributing to improving the organisation's working practices.
- > Identify and deal with hazards in the railway environment.

- > Obtain authorisation before work is carried out.
- > The complexity of the preparations.
- > Planning activities and preparing resources.
- > Maintain the condition of the work site, materials and equipment.

Australia:

The National Certificate in Overhead Track Equipment has been benchmarked against the corresponding Qualification and individual Unit Standards registered by the Australian Qualifications Authority. The following emanated from the benchmarking process:

Title of corresponding Qualifications:

Electrical Engineering - Electrical Installations, e.g. testing; inspection, repairing, maintaining, etc.

Differences with South African Qualification:

The Australian Qualification incorporates the different railway engineering disciplines into one Qualification, i.e. a generic core with different streams representing the various disciplines, such as, High-voltage testing, Installations which includes sets and testing. The Australian Qualification provides recognition for a broader range of competencies related to the maintenance of electrical equipment.

Similarities with South African Qualification:

There are a lot of similarities with regard to the individual unit standards and competencies included in these Qualifications.

These include competencies relating to:

- > Planning and preparing work.
- > Joining of electrical cables.
- > Testing of cables.
- > Installation of circuit breakers.
- > High-voltage switchgear above 1000 kV.
- > Clean up.

In conclusion it can be stated that this qualification compares well with those qualifications mentioned above. Despite the differences, the essential competencies relating to the work that will be done by learners are contained in the South African qualification.

ARTICULATION OPTIONS

This is a qualification in a series in overhead track equipment qualifications varying from **NQF Level 2 to 4**. As one of the focus areas within the overhead track equipment is on safety, the embedded safety consciousness within the working environment will be favourable to any employer. This series of qualifications articulates directly to learning programs and qualifications in overhead track equipment. It also opens the possibility for further learning in the sub-fields of Electrical Infrastructure Construction, Engineering and Related Design and Manufacturing and Assembly:

Vertical articulation is possible with:

- > **49745**: "National Certificate: Value Engineering" at NQF Level 5
- > **49511**: "National Certificate: Lift Inspection" at NQF Level 5

Horizontal articulation is possible with:

- > **48474**: "National Certificate: Electrical Engineering" at NQF Level 4
- > **49067**: "Further Education and Training Certificate: Railway Signalling: Fault-finding and Repair of Equipment" at NQF Level 4

MODERATION OPTIONS

> Anyone assessing a learner or moderating the assessment of a learner against this qualification must be registered as an assessor with the relevant (ETQA) Body, or with an ETQA that has a Memorandum of Understanding with the relevant ETQA.

> Any institution offering learning that will enable the achievement of this Qualification must be accredited as a provider with the relevant (ETQA) Body, or with an ETQA that has a Memorandum of Understanding with the relevant ETQA.

> Assessment and moderation of assessment will be overseen by the relevant (ETQA) or by an ETQA that has a Memorandum of Understanding with the relevant ETQA, according to the ETQA policies and guidelines for assessment and moderation.

> Moderation must include both internal and external moderation of assessments at exit points of the Qualification, unless ETQA policies specify otherwise. Moderation should also encompass achievement of the competence described both in individual Unit Standards as well as the integrated competence described in the Qualification.

CRITERIA FOR THE REGISTRATION OF ASSESSORS

Assessors and moderators wishing to assess candidates against this qualification must:

- > Be registered as assessors with the relevant ETQA or with an ETQA that has a Memorandum of Understanding with the relevant ETQA body.
- > Be in possession of a relevant qualification in OHTe or Electrical Engineering at least at NQF Level 4 or above.
- > Have practical work experience in the OHTe environment.

NOTES

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UNIT STANDARDS

(Note: A blank space after this line means that the qualification is not based on Unit Standards.)

	UNIT STANDARD ID AND TITLE	LEVEL	CREDITS	STATUS
Core	120021 Afford on-track protection	Level 2	3	Registered
Core	120215 Install a height gauge	Level 2	2	Draft - Prep for P Comment
core	10894 Interpret electrical circuits	Level 3	2	Registered
core	116438 Operate earthing devices on electrical networks	Level 3	5	Registered
core	120218 Assemble and fit small steelwork to overhead track equipment steel structures under isolated and earthed conditions	Level 3	12	Draft - Prep for P Comment
Core	120219 Erect, assemble and fit OHTe steelwork under isolated and earthed conditions	Level 3	15	Draft - Prep for P Comment
Core	120222 Install and secure OHTe switches under isolated and earthed conditions	Level 3	11	Draft - Prep for P Comment
Core	123469 Prepare and install OHTe conductors under isolated and earthed conditions	Level 3	11	Draft - Prep for P Comment
Core	119881 Prepare and install a booster return conductor on 25/50 kV AC overhead traction equipment (OHTe) under isolated and earthed conditions	Level 4	9	Draft - Prep for P Comment
Core	119883 Remove, replace/install and adjust section insulator/phase break/runners on 25/50 kV AC overhead traction equipment (OHTe) under isolated and earthed conditions	Level 4	8	Draft - Prep for P Comment
Core	119890 Sag and tension overhead conductors on OHTe under isolated and earthed conditions	Level 4	12	Draft - Prep for P Comment
Elective	116253 Operate a truck mounted loader crane	Level 2	20	Registered
Elective	520216 Obtain, issue and cancel a work permit	Level 3	6	Draft - Prep for P Comment
Fundamental	119456 Write/present for a defined context	Level 2	5	Registered
Fundamental	7456 Use mathematics to investigate and monitor the financial aspects of personal, business and national issues	Level 3	5	Reregistered
Fundamental	9010 Demonstrate an understanding of the use of different number bases and measurement units and an awareness of error in the context of relevant calculations	Level 3	2	Reregistered
Fundamental	9012 Investigate life and work related problems using data and probabilities	Level 3	5	Reregistered
Fundamental	9013 Describe, apply, analyse and calculate shape and motion in 2- and 3-dimensional space in different contexts	Level 3	4	Reregistered
Fundamental	119457 Interpret and use information from texts	Level 3	5	Registered
Fundamental	119467 Use language and communication in occupational learning programmes	Level 3	5	Registered
Fundamental	119472 Accommodate audience and context needs in oral/signaled communication	Level 3	5	Registered



SOUTH AFRICAN QUALIFICATIONS AUTHORITY

UNIT STANDARD:

1

SAQA US ID	UNIT STANDARD TITLE		
120215	Install a height gauge		
SGB NAME		ORGANISING FIELD ID	PROVIDER NAME
SGB Electrical Engineering & Construction		12	
UNIT STANDARD TYPE		ORGANISING FIELD DESCRIPTION	SUBFIELD DESCRIPTION
Regular		Physical Planning and Construction	Civil Engineering Construction
ABET BAND	CREDITS	NQF LEVEL	UNIT STANDARD TYPE
Undefined	2	Level 2	Regular

SPECIFIC OUTCOME 1

Communicate with relevant role players and complete relevant documentation.

SPECIFIC OUTCOME 2

Prepare to install a height gauge.

SPECIFIC OUTCOME 3

Install a height gauge according to company specific instructions and procedures.

SPECIFIC OUTCOME 4

Finalise the installation of a height gauge.



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UNIT STANDARD:

2

SAQA US ID	UNIT STANDARD TITLE		
120216	Obtain, issue and cancel a work permit		
SGB NAME	ORGANISING FIELD ID	PROVIDER NAME	
SGB Electrical Engineering & Construction	12		
UNIT STANDARD TYPE	ORGANISING FIELD DESCRIPTION	SUBFIELD DESCRIPTION	
Regular	Physical Planning and Construction	Civil Engineering Construction	
ABET BAND	CREDITS	NQF LEVEL	UNIT STANDARD TYPE
Undefined	6	Level 3	Regular

SPECIFIC OUTCOME 2

Cancel work permit.



SOUTH AFRICAN QUALIFICATIONS AUTHORITY

UNIT STANDARD:

3

Inspect, manufacture, remove, install or replace and adjust and or position droppers on overhead traction equipment (OHTE)

SAQA US ID	UNIT STANDARD TITLE		
120217	Inspect, manufacture, remove, install or replace and adjust and or position droppers on over head traction equipment (OHTE)		
SGB NAME	ORGANISING FIELD ID	PROVIDER NAME	
SGB Electrical Engineering & Construction	12		
UNIT STANDARD TYPE	ORGANISING FIELD DESCRIPTION	SUBFIELD DESCRIPTION	
Regular	Physical Planning and Construction	Civil Engineering Construction	
ABET BAND	CREDITS	NQF LEVEL	UNIT STANDARD TYPE
Undefined	4	Level 3	Regular

SPECIFIC OUTCOME 1

Communicate with relevant role players and complete relevant documentation.

SPECIFIC OUTCOME 2

Prepare to inspect, manufacture, remove, install/replace and adjust/position overhead droppers.

SPECIFIC OUTCOME 3

Manufacture droppers.

SPECIFIC OUTCOME 4

Inspect, remove, install/replace and position/adjust droppers.

SPECIFIC OUTCOME 5

Finalise the manufacturing, removal, installation/replacement and adjust/position of droppers.



SOUTH AFRICAN QUALIFICATIONS AUTHORITY

UNIT STANDARD:

4

Assemble and fit small steelwork to overhead track equipment steel structures under isolated and earthed conditions

SAQA US ID	UNIT STANDARD TITLE		
120218	Assemble and fit small steelwork to overhead track equipment steel structures under isolated and earthed conditions		
SGB NAME		ORGANISING FIELD ID	PROVIDER NAME
SGB Electrical Engineering & Construction		12	
UNIT STANDARD TYPE		ORGANISING FIELD DESCRIPTION	SUBFIELD DESCRIPTION
Regular		Physical Planning and Construction	Civil Engineering Construction
ABET BAND	CREDITS	NQF LEVEL	UNIT STANDARD TYPE
Undefined	12	Level 3	Regular

SPECIFIC OUTCOME 1

Communicate with relevant role players and complete relevant documentation.

SPECIFIC OUTCOME 2

Prepare to assemble and fit small steelwork to OHTE steel structures.

SPECIFIC OUTCOME 3

Assemble and fit small steelwork on OHTE steel structures according to company specific instructions and manufacturer's specifications.

SPECIFIC OUTCOME 4

Finalise the assembling and fitting of small steelwork on OHTE steel structures.



SOUTH AFRICAN QUALIFICATIONS AUTHORITY

UNIT STANDARD:

5

SAQA US ID	UNIT STANDARD TITLE		
120219	Erect, assemble and fit OHTE steelwork under isolated and earthed conditions		
SGB NAME	ORGANISING FIELD ID	PROVIDER NAME	
SGB Electrical Engineering & Construction	12		
UNIT STANDARD TYPE	ORGANISING FIELD DESCRIPTION	SUBFIELD DESCRIPTION	
Regular	Physical Planning and Construction	Civil Engineering Construction	
ABET BAND	CREDITS	MQF LEVEL	UNIT STANDARD TYPE
Undefined	15	Level 3	Regular

SPECIFIC OUTCOME 2

Prepare to erect, assemble and fit OHTE steelwork.

SPECIFIC OUTCOME 3

Erect, assemble and fit OHTE steelwork according to company specific-instructions and manufacturer's specifications.

SPECIFIC OUTCOME 4

Finalise the erection, assembly and fitting of OHTE steelwork.



SOUTH AFRICAN QUALIFICATIONS AUTHORITY

UNIT STANDARD:

6

SAQA US ID	UNIT STANDARD TITLE		
120222	Install and secure OHTE switches under isolated and earthed conditions		
SGB NAME	ORGANISING FIELD ID	PROVIDER NAME	
SGB Electrical Engineering & Construction	12		
UNIT STANDARD TYPE	ORGANISING FIELD DESCRIPTION	SUBFIELD DESCRIPTION	
.Regular	Physical Planning and Construction	Civil Engineering Construction	
ABET BAND	CREDITS	NQF LEVEL	UNIT STANDARD TYPE
Undefined	11	Level 3	Regular



SOUTH AFRICAN QUALIFICATIONS AUTHORITY

UNIT STANDARD:

7

SAQA US ID	UNIT STANDARD TITLE		
120232	Fault find and install splices on Overhead Track Equipment (OHTe) conductors under "live" and/or isolated and earthed conditions		
SGB NAME		ORGANISING FIELD ID	PROVIDER NAME
SGB Electrical Engineering & Construction		12	
UNIT STANDARD TYPE		ORGANISING FIELD DESCRIPTION	SUBFIELD DESCRIPTION
Regular		Physical Planning and Construction	Civil Engineering Construction
ABET BAND	CREDITS	NQF LEVEL	UNIT STANDARD TYPE
Undefined	13	Level 3	Regular

SPECIFIC OUTCOME 1

Communicate with relevant role players and complete relevant documentation.

SPECIFIC OUTCOME 2

Prepare to do fault finding and installation of splices on OHTe conductors under "live" and/or isolated and earthed conditions whilst working independently.

SPECIFIC OUTCOME 3

Faultfind and install splices on OHTe conductors under "live" and/or isolated and earthed conditions according to company specific instructions and manufacturer's specifications.

SPECIFIC OUTCOME 4

Finalise the installation of splices on OHTe conductors.



SOUTH AFRICAN QUALIFICATIONS AUTHORITY

UNIT STANDARD:

8

SAQA US ID	UNIT STANDARD TITLE		
123469	Prepare and install OHTE conductors under isolated and earthed conditions		
SGB NAME	ORGANISING FIELD ID	PROVIDER NAME	
SGB Electrical Engineering & Construction	12		
UNIT STANDARD TYPE	ORGANISING FIELD DESCRIPTION	SUBFIELD DESCRIPTION	
Regular	Physical Planning and Construction	Civil Engineering Construction	
ABET BAND	CREDITS	NQF LEVEL	UNIT STANDARD TYPE
Undefined	11	Level 3	Regular

SPECIFIC OUTCOME 2

Prepare and install OHTE conductors.

SPECIFIC OUTCOME 3

Prepare and install OHTE conductors according to company-specific instructions and manufacturer's specifications.

SPECIFIC OUTCOME 4

Finalise the installation of OHTE conductors.

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